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COGNATES AS AN EFFICIENT APPROACH TO SECOND LANGUAGE ACQUISITION

by

© PETRA HAMMER

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH
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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research, for acceptance, a thesis entitled COGNATES AS AN EFFICIENT APPROACH TO SECOND LANGUAGE ACQUISITION submitted by PETRA HAMMER in partial fulfilment of the requirements for the degree of Doctor of Philosophy.

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ABSTRACT

The purpose of this thesis was threefold. First, the dynamics of first and second language acquisition from a developmental, psychological and semantic perspective were examined. Secondly, the thesis presented, from the relevant literature, an analytical framework within which the role of cognates in second language acquisition was assessed. Finally, the development of a cognate instructional unit was discussed and accompanied by an analysis of the results of empirical studies designed to test the efficiency of that approach in French second language acquisition.

The theories of developmental psychologists like Werner and Kaplan (1952, 1963), Piaget (1955, 1969), and Vygotsky (1962) served as reference for an examination of a child's first language acquisition and in particular, the process of word meaning acquisition. The dynamics of first language acquisition were examined using the communication model discussed by Werner and Kaplan (1963) which relates the addressor, addressee, symbol and referent to the distanciation process. The distanciation process within first language acquisition and the process of word meaning acquisition were compared with second language study. A reciprocal relationship between first and second language study was suggested; that is, with second language learning the distanciation process of word and sentence, sound and meaning, and symbol and referent may be facilitated in the

first language. It was suggested that a complementary relationship exists between first and second language study when knowledge of the first language aids in learning a second and related language. A bilingual language model was constructed to illustrate the relationship between the language components, phonology, syntax and lexicon. The model was used in an attempt to demonstrate that, by acquiring and integrating concepts for which no counterparts are available in the first language, the semantic aspects of words of a bilingual or multilingual individual may become modified and unlike those of any unilingual person.

The appropriate age for cognate study was suggested by examining learner characteristics, Claparède's law and the nature of the English-French cognates (Hammer & Monod, 1976). Two separate studies, one with first year university French students and one with grade ten students were conducted, in order to determine whether the study of French by Anglophones can be facilitated and accelerated by the use of cognates. An English-French cognate unit, presenting a systematic exposition of cognates, served as the experimental treatment. With an English reading test by Jewell and a French standardized reading test, the MLA test, Form LA (pretest) and LB (posttest) the correlation coefficients between the tests were calculated as well as the mean differences for the control and experimental groups. The observed correlation coefficients of the tests

varied from low to statistically significant ones. The mean differences did not reach statistical significance although the experimental groups obtained a higher mean. When the French MLA reading test was replaced with a cognate measuring instrument, the WCRT 1, a statistically significant higher mean for the experimental group was found.

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Chapter I

THE PROBLEM

Introduction

The relative ease of rapid transportation and communication, due to modern technology, entails a greater need for second language acquisition, since language barriers may be a disadvantage on interpersonal, social, political, economic and scientific grounds. Unfortunately, the ease with which contact with different language groups is possible is not matched by equal facility of second language acquisition; too often there exists a great discrepancy between the amount of time spent on second language study and the proficiency attained.

Among the various approaches in second language teaching and the research which surrounds it, efforts have been directed towards research on several mnemonic techniques for learning second language vocabulary: Bower (1970) analyzed the loci method as a mnemonic device; Ott, Butler, Blake and Ball (1973) investigated the effect of interactive image elaboration on the acquisition of second language vocabulary; and Atkinson (1975) suggested a mnemonic keyword method.

As increasing numbers of individuals need or wish to learn a second language while employed, developing an efficient method becomes of paramount importance. A primary objective in new methods of learning a second language must be to decrease the ratio of the time expended to the proficiency attained. Increased efficiency of method will not only attract more students to language learning, but will also minimize the expenditure of time and money involved.

The Michel Thomas Language Center (1976) advertised that in an introductory course in Spanish or French of twenty to twenty-five hours in length, "students achieve functional proficiency in speaking and reading in the present tense, and have a working vocabulary of 2,000 words." In a basic proficiency course, lasting fifty to fifty-five hours, "students achieve functional proficiency in speaking, reading and writing in the five most commonly used verb tenses: present, past, future, conditional and imperative. They will have a working vocabulary of 3,000 words".

In comparison with the Michel Thomas language program the Curriculum Guide for French (1974) for the Province of Alberta proposes the learning of "900 passive and 300 active words for level one" (p. 21). This cannot be necessarily equated with a school year as a school year amounts to sixty hours of French instruction for elementary pupils, seventy hours for junior high school students and one-hundred-and-twenty-five hours for senior high school students in the Edmonton Public School System.

The discrepancy of suggested achievement in school language learning and the Michel Thomas method may not be completely explained by the conditions and characteristics of the learner in two different situations. The Michel Thomas method is in effect a cognate approach to the study of interrelated languages like English, French and Spanish.

Michel Thomas relies on two rules in his method of instruction: First, the learner has to be put at ease, for too much anxiety can cripple learning. Second, it is not the student but the teacher who is responsible for ensuring that learning occurs. It is promised that no memorization, no learning by rote, no drill, no textbooks and no home work are necessary, and that useable language proficiency is achieved within a very short time.

This claim that functional proficiency in a second language may be attained within twenty-five to fifty-five hours may be valid, if one notes that the English and French languages share approximately 11,000 words (Hammer & Monod, 1976) and the English and Spanish languages approximately 4,000 (Nunn & Van Scroy, 1949). The learner is taught relatively little new information but rather how to apply knowledge of his first language to a second and related language. Thus, if the cognate approach is a viable economic private enterprise, it should be possible to facilitate second language learning of related languages in a school setting.

To determine whether or not the use of cognates as a vocabulary acquisition device in second language learning is feasible, literature relating to cognate study was reviewed. To understand and improve knowledge of and ability to accelerate French second language acquisition by English-speaking individuals, a theoretical framework for the cognate approach is proposed. The rationale on which an English-French cognate unit has been constructed is explained.

There are three basic areas of agreement among the researchers advocating the use of cognates as a device for learning to read a second language. First, written recognition of cognates is not hampered by pronunciation. Second, vocabularies are learned in a linguistic context the specific shade of meaning of the cognate word is illuminated in a linguistic context. Finally, reading requires a greater knowledge of vocabulary since word selection in reading is independent of the reader. At present, however, statistical studies which actually confirm these claims are few.

Purpose of the Study

The purposes of this study are: first, to develop an analytical framework for the cognate approach in second language teaching and learning; second, to design an English-French cognate unit based on the proposed rationale; and third, to assess the efficiency of the cognate unit using a French standardized reading test.

Statement of the Problem

There is a need to consider whether the study of French by Anglophones can be facilitated and accelerated by the use of cognates.

Definition of Terms

For the purpose of this study the following definitions will apply:

Cognates : words that are identical or similar in spelling and meaning in two or more languages regardless of origin.

Cognition : any mental or emotional operation by which we become aware of objects, of thoughts and/or perception.

Efficiency : the ability to achieve the desired language competency with a minimum time expenditure.

Transfer : the application of English knowledge where it is appropriate to French second language acquisition.

Negative Transfer : the use of inappropriate elements of one language while speaking or writing the other.

Anglophone : an individual whose dominant language is English.

Distanciation Process : with respect to the symbolic vehicle refers to the differentiation between words and sentences, sound and meaning and symbol and referent.

Word : The definition by M. Meillet quoted in Webster's Dictionary (1955) will be adopted. According to Meillet "a word is the result of the association of a given meaning with a given combination of sounds, capable of a given grammatical use".

Denotation : the object or objective event designated by a word.

Connotation : the multiple denotative meanings of words; or the aspect of meaning which is suggestive of the emotional content of a word.

Concept : an idea which combines several elements from different sources or a group of perceptions into a single notion mediated by words of a given language.

Context : the part or parts of a discourse preceding or following a text, a passage, or a word which is so intimately associated with it as to throw light upon its meaning.

Lexicon : the vocabulary of a language as distinguished from its grammar or phonology.

Lexicalization : the process by which words come to acquire meanings relatively independent of specific, concrete contexts of application (Werner & Kaplan, 1963: 190).

Syncretism : a subjective synthesis, not presupposing analysis.

Guided Learning : the process of arriving at a solution, concept, or principle with guidance but without being told the solution.

Delimitations

1) The theoretical framework is delimited by the sources used.

2) The theoretical framework of the study deals with the distanciation between the person and the symbolic vehicle (language), rather than the distanciation between the individual and the object, or the distanciation between the self as the subject and self as the object.

3) The study is delimited to second language learning in a school setting.

4) The treatment is restricted to the vocabulary and syntactic components of reading.

5) The cognate approach is not a methodology by itself. Rather, it is an approach that was tested in conjunction with an existing teaching methodology.

6) The study is restricted to a limited time period.

Limitations

1) The short time span of the study constitutes one limitation.

2) The teachers, who participated in the cognate study, were not randomly selected, rather, they volunteered.

3) The individual students were not randomly assigned to the control or experimental group. However, intact classes were randomly assigned to the control and experimental

condition.

4) Differences in I. Q., interests and socio-economic status of the students were not controlled.

5) There may exist in the experimental phases a possible interference of the regular French instruction with the experimental instruction.

6) The results of the experimental testing are dependent on the validity of the standardized tests used as cognate measuring instruments.

7) In second language learning, the attitudes of the learner towards the language studied may determine to a large extent the success or failure of the program. It is possible that the learner may refuse to rely on transfer between two languages because of fear of confusion in his attempt to decipher French using the cognate approach. If the learner attempts to keep his two languages as separate as possible, transfer may be inhibited. Thus, the individual's learning strategy may be a possible obstacle to cognate usage.

Organization of the Study

In the second chapter the psychological and linguistic foundations of three methodologies in second language teaching are highlighted. A child's first language acquisition is examined from a developmental perspective. The theories of Werner and Kaplan (1952, 1963), Piaget (1955, 1969), and Vygostky (1962) serve as reference for this examination. In chapter three the implications of their theories for second language teaching and learning are examined; possible consequences of a reciprocal and a complementary relationship between first and second language learning are examined; the chapter concludes with the exposition of a bilingual language model. Chapter four reviews literature dealing with English-French cognates and is subdivided into sections describing "deceptive" cognates and the use of "good" cognates in second language acquisition. In chapter five the reasons for constructing an English-French cognate unit, the appropriate age levels for cognate study and the theoretical and tested objectives of the English-French cognate unit are presented. In chapter six the findings of the experiments testing the possible efficiency of the English-French cognate unit are presented, analyzed and discussed. The seventh chapter contains the summary, implications and suggestions for further research.

Chapter II

METHODOLOGIES IN SECOND LANGUAGE TEACHING AND THE DYNAMICS OF FIRST LANGUAGE ACQUISITION

In order to gain the perspective required for developing an analytical framework for the cognate approach, a brief review of three methodologies in second language teaching and learning is presented and their psychological and linguistic foundations are highlighted. The theories of the developmental psychologists Werner and Kaplan (1952, 1963), Piaget (1955, 1969) and Vygotsky (1962) serve as reference for an examination of a child's first language acquisition and, in particular, the process of word meaning acquisition. The dynamics of first language acquisition are examined, using the communication model discussed by Werner and Kaplan (1963) which relates the addressor, addressee, symbol and referent to the distanciation process. Special attention is focussed on the distanciation process with respect to the symbolic vehicle, whereby the child comes to differentiate between words and sentences, sound and meaning, and symbol and referent within a given language. The chapter concludes with an exposition on the acquisition of word meaning. The findings and theories of Werner and Kaplan (1952, 1963) and Vygotsky (1962) form the foundation of this examination.

A Review of Three Methodologies in Second Language Teaching

Second language teaching methodologies have been influenced to some extent by linguistic and psychological research findings. Three second language teaching methods, the grammar-translation, also known as the traditional approach, the audio-lingual method and the cognitive code-learning approach will serve to illustrate this point.

The name "grammar - translation" method illustrates the emphasis accorded to the study of some rules of syntax, paradigms of morphological forms and the application of these in translation. As Smith (1970: 4) noted:

> ... emphasis on grammar can be traced to the influence of eighteenth century grammarians who assumed the existence of a universal grammar founded in universal reason and embodied in its purest state in the Greek and Latin of classical literature.

Grammar lessons and translations of reading material were the focus of this type of second language teaching. Coleman's study (1929) recommended the single objective of developing reading proficiency as being realistically attainable under typical classroom conditions. It should be noted that the grammar - translation method pre-dated the widespread use of the tape recorder.

The introduction of the audio-lingual method into second language school teaching about 1950 incorporated theoretical constructs and insights in the field of psychology. The behavioristic school of psychology, with

Skinner as the exponent in the analysis of operant behavior conditioning, brought the application of shaping, overlearning, reinforcement, conditioning, stimulus and response within the realm of second language teaching.

The audio-lingual habit theory advanced by Nelson Brooks (1966) espoused the tenets of structural linguistics. The origins of structural grammar may be found in de Saussure's (1916) contention that language is a form and not a substance, the contributions of Sapir (1921) and Bloomfield (1933) who described the languages of the American Indians, the study of information models and research in machine translation. Structural linguistics may also have been, in part, a reaction against traditional grammar, which was criticized as failing to take into account the language of today, imposing a norm determined by the styles of the great writers of the past, describing only the written language and emphasizing the study of morphology while neglecting to present an analysis of many important and frequent sentence constructions. In contrast, structural grammar is descriptive, not prescriptive. The investigation of a linguistic corpus is inductive as was the compilation of _Le francais fondamental_ (1959), for example.

The audio-lingual method used behavioristic psychology as the psychological basis and structural grammar as the linguistic one. In audio-lingual language teaching emphasis was placed on imitation, practice and repetition of selected language material. The language laboratories made it possible to provide native language models to the second language learner for imitation and extensive structure drills. Unlike the grammar - translation method, the audio-lingual method placed emphasis on the spoken language. Johnston and Seerly (1958: 15) observed "... language is speech. The written form comes later, considerably later in the progression of language learning, which is first hearing and speaking and then reading and writing." Second language teaching, according to the proponents of the audio-lingual method, was aimed at maintaining the natural order of language learning, that is, listening, speaking, reading and writing. Speech was regarded as behavior and thus the behavioristic theories of learning appeared to apply.

As the audio-lingual habit theory became prevalent in second language teaching, drawbacks of the oral approach were noted by Chastain and Woerdehoff (1968), Woodsworth (1973) and Smith (1970). Ausubel (1964: 420) identified the following as disadvantages of the audic-lingual method for adolescents:

> 1) the rote learning of phrases; 2) inductive rather than deductive learning of grammatical generalizations; 3) avoidance of the mediational role of the native language; 4) presentation of the spoken form of the language before the written form; and 5) insistence on exposing the beginner to the 'natural speed rendition' of the spoken language.

The audio-lingual method was not found to be uniformly effective for second language students across all grades.

The most recent approach, the cognitive code-learning method, may be regarded as being partly a reaction against the audio-lingual habit method and partly an alignment with transformational linguistics. Carroll (1965) suggested that the cognitive code-learning method is based on a modified, up-dated grammar - translation method. In this method language learning is treated as an intellectual discipline. Carroll (1965: 278) summarized this method as follows.

> ... learning a language is a process of acquiring conscious control of the phonological, grammatical, and lexical patterns of a second language, largely through study and analyses of these patterns as a body of knowledge. The theory attaches more importance to the learner's understanding of the structure of the foreign language than to his facility in using that structure, since it is believed that, provided the student has a proper degree of cognitive control over the structures of the language, facility will develop automatically with use of the language in meaningful situations.

In the cognitive code-learning method, exercises are designed to teach grammatical understanding of the concepts being introduced. Prior to any practice with the structure, deductive explanation of grammar is given and all four language skills are practised from the beginning of the course.

Transformational grammar, as first described by Chomsky (1957) in Syntactic Structures, provided a new and descriptive mechanism for grammars. The descriptive mechanism went no further than previous grammatical systems in providing useful information for the second language teacher (Marckworth, 1977). Transformational generative grammar provided excellent syntactic descriptions, but these were not useful to the second language learner.

Lawler and Selinker (1971) criticized the utility of transformational generative grammar for the cognitive code-learning method because 1) individual differences among speakers are not considered, 2) the "ideal speaker-listener relationship" is not practical in second language teaching and 3) the time factor in learning a second language is not considered.

In summary, no single method in second language teaching was found to be a panacea. Authors such as Cook (1969) and Belasco (1970: 42) suggested combining elements of different methods. These authors did not assume "... that a cognitive approach is mutually exclusive with a verbal - behavior approach." Furthermore, it appears that the grammar - translation method emphasized reading, the audio-lingual method, speech, and the cognitive code-learning method, all language skills.

What has been omitted from consideration in the methods reviewed appears to be the developmental aspect of the child. Smith (1970: 6) pointed out: "Education in general, and mastery of a second language, in particular, are longitudinal processes; the appropriate manner in which they are to be studied should be longitudinal." For this reason the theories of developmental psychologists like

Werner and Kaplan (1963), Piaget (1955) and Vygotsky (1962) are used to provide the framework within which first language acquisition is examined. Possible implications that their theories may have for second language teaching and learning of cognates are presented in chapter three.

A Child's First Language Acquisition and the Concept of Distanciation

According to Werner and Kaplan (1963), the child advances through a sequence of distanciations of the addressor and addressee, the addressor and referent (object) and the addressor and symbolic vehicle (language). In terms of symbol formation and communication, the principal components comprising the symbol situation are two persons, the addressor and the addressee, and by what channel a message is transmitted, be it through gesture, facial expression and/or use of the symbolic vehicle, that is, language.

The addressor-addressee relationship widens as the child matures. The initial fusion of the infant-mother relationship is gradually superseded by peer relationships and eventually generalized others. With the development of language, the child comes to establish stable relations between objects and his own body and can thus rise out of the undifferentiated nature of the addressor-referent (object) relationship. The earlier media of representations, like bodily movements of the child, become more and more replaced by vocal utterances and, with the use of the symbolic vehicle, the addressor can distance himself from direct, pragmatic operation upon things. As the distance between the addressor and the symbolic vehicle becomes greater, the symbolic vehicle reflects less egocentricity and idiosyncrasy. Concomitantly, with the addressor-symbolic vehicle distanciation, the distance between the symbolic vehicle and the referential object develops. Instead of treating the name as if it were the object, vehicle and referent become distinct as to their substantial nature.

By placing a time dimension on this model, with the developmental stages as the dependent variable, each of the principal components (addressor, addressee, symbolic vehicle and referent) undergoes changes from undifferentiated globality to distanciation and differentiation. It is assumed that this distanciation process of the addressor and symbolic vehicle is not unique for a given language, but rather constitutes a developmental sequence of a general nature.

The acquisition of language is a gradual process which may be examined with particular reference to Piaget's (1969) cognitive stages. The sensori-motor stage, extending from birth to approximately the second year of life, corresponds in language acquisition to the mastery of all the vowels and two thirds of the consonants (Bar-Adon & Leopold, 1971). One and two-word sentences occur during the second year of life. During the early part of what Piaget terms the pre-operational stage, continuing approximately from the second to the seventh year of age, the greatest improvement in clarity of articulation occurs. Practically all speech is comprehensible after three-and-a-half years. It has been observed that by the age of three years and eight months, on the average, children use all the basic sentence structures (statement, question, command) used by adults (Menyuk, 1963; Slobin, 1963; Brown, Cazden and Bellugi-Klima, 1964). During the stage labeled as the concrete operational, which, according to Piaget, encompasses the period from seven to eleven years of age, language development advances to the point where the child can think logically enough to solve problems involving "concrete" objects and events. The final stage, called the formal operational, generally develops during the eleventh to the fifteenth years. A distanciation with respect to the symbolic vehicle (language) appears to be required before the young adolescent becomes able to solve hypothetical problems, complex verbal problems and to use scientific reasoning. The distanciation process within language appears to correlate positively with the cognitive developmental stages.

The distanciation process with respect to the addressor (child) and the symbolic vehicle (language) is characterized by a differentiation between words and sentences, between sound and meaning and between symbol and referent. Concerning the differentiation process between words and sentences, students of child linguistics, psychologists, and philosophers have often noted the holophrastic nature of early verbal symbolizations. Sully (1897), Stern (1924), Leopold (1939) and Bruner (1975), among others, referred to the self-contained phonological utterance or word as "one-word sentence". The one-word sentence is thought to represent an undifferentiated linguistic whole. It is out of this undifferentiated whole that words and sentences emerge. Research findings have demonstrated that lexicalization and syntactic structurization appear to be interdependent. Werner and Kaplan (1952: 103) found that as word meanings become less holophrastic, syncretic, and fluid, sentence structures become more stable. Piaget (1955: 135) observed the same phenomenon. The child of six years of age "... ignores isolated words and deals with whole sentences, understanding them or altering them as they stand without analyzing them." The differentiation between words and sentences is aided once the child is taught how to read. Watts (1944: 64) noted that "familiarity with print helps (the child) to know words as separate elements of his language."

Another distanciation process within the symbolic vehicle occurs when the child comes to distinguish between sound and meaning. At first, the child does not separate the phonological forms of words from its meanings; rather, as Piaget (1955: 251) noted, the word, to the child, is an integral part of the object it denotes. To the question "Have words any strength?" Piaget recorded that a child answered that they had if they denoted things that had strength, but not otherwise.

It is postulated that the distanciation process between the symbol and the referent is related to the degree of verbal abstractness. For example, Sully (1897) and other researchers in child language development have noted how literally children interpret the figurative and metaphorical use of our language. Werner and Kaplan (1963), discussed at least three degrees of "distance" between the symbol and the referent. At the level of "minimal distance" the vehicle directly pictured that which it represented. Naturalistic onomatopoetic depictions, whereby children imitate the noises or sounds of objects and/or persons, for example, "boom" referring to thunder, are illustrations of designatory vocal imitations. At a level of "intermediate distance" the vehicle functions in a "concrete metaphoric" way in the representation of the referent. Here, unlike the depiction of sonic properties of events, visual properties are rendered linguistically. For example, physiognomic depiction of the variations of length are expressed by variations of sound durations. At a third degree of distance the vehicle functions as an "alluding metaphor"

(Werner and Kaplan, 1963: 454). Conventional representation of the world using the linguistic medium reflects the highest degree of material differentiation between the symbolic vehicle and the referent. Increased mastery of the abstract nature of language is thus related to the developmental process.

The Acquisition of Word Meanings

An examination of the processes of word meaning acquisition shows that word meanings evolve. At the pre-symbolic stage the global context of the child's experiences between himself, other people and the referential object appears to be fused. This is supported by the conclusions of Werner and Kaplan (1952; 1963), who suggested that the micro-genetic process of transforming "felt" meanings into appropriate linguistic expression to others follows an orderly, sequential pattern. At first meanings are felt or suffered rather than cognitively apprehended. The early vocalizations of the child are embedded in a context of concrete action and affect where words by themselves carry little or no meaning. Child language investigators agree that a child's conception of the meaning of words does not coincide with that of an adult. It is the adult who assumes the meaning intended by the child's first words (Taine, 1877; Preyer, 1882; Sully, 1897; Ach, 1971). Gradually, the diffuse and interpenetrating sentiments and meanings become embodied to some degree in personal, idiomatic, and contextualized gestures and verbalizations. Child language investigators have suggested that due to their limited verbal expressive ability children enlarge the meaning of words (Tiedemann, 1787; Taine, 1877; Preyer, 1882; Sully, 1897; Leopold, 1939) and invent their own (Taine, 1877; Stern, 1924; Leopold, 1939). Increasingly, as experience is shaped more and more to facilitate communication with others, there is a progressive differentiation and articulation of connotations. Eventually, lingualization in the developing person becomes increasingly detached from imagery and gesture and becomes dominant over these more personal and covert media. Finally, communication about experience becomes more and more directed towards, and facilitated by, the communal lexicon and syntax (Werner & Kaplan, 1963: 242).

The learning of word meaning by children develops from coarse early semantic classifications. A gradual refinement of the semantic system occurs as prescribed by the child's environment. Proper names appear among the first lexical items which have exact meanings (Leopold, 1939). Later, an increase in vocabulary enables the developing child to differentiate among and to specify events in his environment. Werner and Kaplan (1963: 99) noted that the process of differentiation and specification , whereby a vocal form, first global and nonspecific, becomes increasingly function-specific and conforming to the speech of socialized normal adults, is a gradual process. As the child grows up, the distance between the domain of concrete, perceptual motor experiences and the abstract levels of language usage is reflected in the lexical conceptualization of generality. Instead of being context specific, the word is used to refer to class concepts.

The coincidence of age agreement between Piaget's cognitive stages and Werner and Kaplan's word meaning acquisition study is noteworthy. At approximately eleven to twelve years of age the transition from the concrete operational stage to the formal operational stage is postulated to begin. For the same age group, Werner and Kaplan (1952, 1963) found a change in performance on the Word-Context Test. Prior to eleven years the request to the child to define verbal concepts, for example, "What is a bottle?", the reply was in terms of concretely contextualized action. A bottle was defined as "There is lemonade in it". However, twelve or thirteen year old children define "bottle" in terms of relatively context-free general thing names, as for example, "a bottle is a container into which all kinds of liquids go". Werner and Kaplan (1963: 188) quote a study by Barnes (1896 - 1897) which examined the definitions of children from six to fifteen years of age. Barnes found that definitions formulated in terms of concrete action declined from 82 per cent at the 6-year level to 33 per cent at the fifteen-year level. Barnes noted that it is still quite common at age ten for children to give more than fifty per cent of their definitions in concrete terms.

Werner and Kaplan (1952) investigated experimentally the processes underlying the acquisition of word meaning through verbal contexts. A Word-Context Test was designed wherein children from eight-and-a-half to thirteen-and-a-half years were asked to give an "adequate" or "suitable" meaning to an unknown (artificial) word, embedded in six different sentence-contexts.

> The sentences are exposed progressively and cumulatively, that is, the first, the first and second, and so on. As each additional context is exposed, the subject is required to endow the artificial word with a meaning, to indicate how that meaning fits each of the previous contexts. Ideally, the subject is directed towards the formulation of a word meaning that will be semantically and grammatically insertable into each of the sentence-contexts without alteration or transformation of the structures of the sentence-contexts (Werner & Kaplan, 1952: 82).

Werner and Kaplan (1952) concluded on the basis of their study that the process of establishing a stable, relatively general meaning for words, a meaning which transcends specific significances of a word in different contexts, is a long and difficult one.

Similarly, Vygotsky (1962: 52 - 81) noted the developmental aspect in word meaning acquisition as it relates to concept formation. He identified three developmental phases in the process of concept formation: syncretic, complex and conceptual thinking. Syncretic thinking, continuing from approximately three to seven years of age, is characterized by subjective impressions and syncretic images of the child. According to Vygotsky (1962), word meaning is no more than the representation of a group of individual objects depicted as a visual image in the child's mind. In complex thinking, the bonds established between objects are concrete and factual rather than abstract and logical. Complex thinking occurs approximately during the period between the seventh and the eleventh years. Vygotsky (1962: 69) noted that "word meanings as perceived by the child refer to the same objects the adult has in mind, which ensures understanding between child and adult, but that the child thinks the same thing in a different way, by means of different mental operations." Finally, conceptual thinking, as characterized by the ability to abstract or isolate single traits from a concrete whole and to analyze and synthesize the abstracted elements, results in a network of concepts of various degrees of abstractness and generality. Thus, Vygotsky (1962: 74-75) claimed that "... a name is never a concept when it first emerges (but) ... rather an image, a picture, a mental sketch of a concept ...." When true concepts are formed, the word ceases to serve as the arbitrary referencing function in the forming of a concept and becomes instead an abstract symbol of the concept. Conceptual thinking emerges in children around eleven to thirteen years of age.

The three basic phases of concept formation represent, according to Vygotsky (1962), "an intellectual process in the true sense" rather than a mere recording of "the child's knowledge and experience, or his linguistic development." Vygotsky (1962: 58) wrote that "the development of the processes which eventually result in concept formation begins in earliest childhood, but the intellectual functions that in a specific combination form the psychological basis of the process of the concept formation ripen, take shape, and develop only at puberty." The developmental secuence is invariable. Concept formation progresses from the undifferentiated and syncretic thinking of the very young child to the abstract analytic and synthetic thinking of the adolescent and adult. However, as Vygotsky (1962: 75) pointed out, "it should be noted that even the normal adult, capable of forming and using concepts, does not consistently operate with concepts in his thinking. ... the adult constantly shifts from conceptual to concrete, complexlike thinking."

It is suggested that the acquisition of word meanings may parallel conceptual meaning acquisition. Although investigators of child language acquisition hesitate to talk about conceptual knowledge of words at an early age of the child, Church and Stone (1973: 224) noted that "the language that a child learns contains a number of subvocabularies, refering to special, logically related 'domains' of experience." They listed time-related words such as "day", "night", "first" and "now"; spatial vocabulary including "up", "down", "on"; a special vocabulary of shape and color names. These subvocabularies identified by Church and Stone may represent a conceptual framework that is modified as the child progresses through the cognitive developmental stages postulated by Piaget. The conceptual meaning acquisition of these subvocabularies may be further developed in school, where particular subject matter is presented in an orderly, sequenced, and articulated manner. Vygotsky (1962: 85) noted that "instruction is one of the principal sources of the school child's concepts and is also a powerful force in directing their evolution; it determines the fate of his total mental development."

Studies in education and psychology assure us that the growth of human intellect is tied to the number of acquired concepts. Thus, without conceptual understanding, a word will not necessarily carry with it conceptual knowledge. However, concepts come to be associated with words. Wüster (1959) described the relationship of words and concepts as follows: "Denn ohne sprachliche Zeichen (Wortsymbole) gäbe es keine Begriffe und kein richtiges Denken. Umgekehrt wären Wörter ohne Begriffe ... 'leere Worthülsen' -- nur ein Gegenstand der Akustik" (p. 621). (Without words, conceptual and abstract thinking would not be possible. Words without concepts would be empty word shells, just an object of noise.) Vygotsky described the relationship poetically. "A word devoid of thought is a dead thing, and a thought unembodied in words remains a shadow" (1962: 153).

For a child who is learning his first language, the relationship of words and concepts may be depicted as two planes which are at right angles to each other. In adulthood, depending upon the size of the person's functional vocabulary, word meanings and concepts are like two parallel planes each holding the other in place. Thus, as the child acquires conceptual structure, stability is provided for word meanings. Werner and Kaplan (1963: 19) similarly maintained that "... an object as a meaningful entity issues from, and remains linked to, an underlying process of schematization. If this bond breaks meaning is lost."

According to Cassirer (1944) words express emotion since man's contact with symbols is never in isolation from the continuum of human emotion. The relationship of word and affect may be such that the amount and type of emerging affect could depend upon the conceptual content of the word. This may be illustrated by word types: technical words, for example, probably have the lowest degree of affective content while curse words probably have the highest.

Werner and Kaplan (1952) identified two sequential levels in the acquisition of word meanings. They noted that during the early years the child learns the meaning of

-verbal symbols predominantly in concrete situations: through handling of objects in the presence of adults, direct pointing and naming. At an advanced level, the meaning of a word is inferred from the cues of the verbal context.

Vygotsky (1962) also identified two levels in the development of word meanings. He described the meaning acquisition of words during the first level in a manner similar to that of Werner and Kaplan (1952). The concepts embodied in concrete words refer to "... a dependent component of perceptual, object-determined thought" (p. 112). However, then, unlike Werner and Kaplan (1952), Vygotsky did not emphasize the process of meaning acquisition, but rather the product, suggesting that the second level in the development of word meaning is characterized by "generalized abstract conceptualization" (p. 112).

Summary

In summary, Werner and Kaplan (1952, 1963), Piaget (1969) and Vygotsky (1962) appear to agree that there is an essential difference between the adult's conceptual thinking and the forms of thought characteristic of the young child. The distanciation process (Werner and Kaplan, 1963) within the first language appears to be related and intimately linked to the cognitive development (Piaget,

1969) and concept formation (Vygotsky, 1962). Concepts, formulated on a purely abstract plane without reference to any concrete situation or impression, require a degree of linguistic manipulation which may be possible only when a certain degree of distanciation is achieved. The word appears to be an integral part of the developing processes leading to concept formation and cognitive development.

In chapter three the implications of the developmental theories by Werner and Kaplan (1952, 1963), Piaget (1955, 1969) and Vygotsky (1962) concerning a child's first language acquisition for second language teaching and learning are examined.

Chapter III

THE DYNAMICS OF FIRST AND SECOND LANGUAGE ACQUISITION

This chapter presents an examination of how the distanciation process within first language acquisition and the process of word meaning acquisition relate to second language study. In addition, the semantic aspect of words is examined. Although words in two or more languages are not identical with respect to the affective, denotative, connotative and conceptual meaning, preliminary investigation suggests that the denotative and /or conceptual overlap of cognates may indicate the utility of a cognate approach in teaching and learning related languages. Finally, chapter three concludes with a bilingual language model constructed to illustrate the relationship between the language components, phonology, syntax and lexicon.

The Relationship Between First Language Acquisition and Second Language Learning

The examination of first language acquisition presented in chapter two serves as a reference to show that second language acquisition may be directly pertinent to the distanciation process between words and sentences, between sound and meaning and between symbol and referent. In second language teaching, words and syntax must explicitly be pointed out to the learner. Vocabulary learning in second language study helps to establish the verbal unit of thought, that is, the word. With second language learning the object-word link becomes severed. That the name is not inherent in the object may be realized by learning that the same referent, for example "stone", is rendered by different phonetic forms as "pierre" and "Stein" in the French and German languages. Leopold (1939: 98) who studied the speech development of a bilingual child noted that "... one of the advantages of bilingualism is that the child was at no time the slave of words; she always focused her attention on the sense behind the phonetic configurations."

It is likely that the distanciation process within the first language, which was explained in chapter two, becomes complete with the transition to the formal operational stage. However, this distanciation process may be aided and possibly accelerated with second language acquisition during elementary school years. Ianco-Worrall (1972) duplicated the finding of Leopold's (1939) observation. The bilingual child separated the sound and meaning of words at an earlier age than a unilingual child. What is reflex-like in the first language is consciously acquired in the second language. As the linguistic and the semantic aspects of speech merge from opposite directions (Vygotsky, 1962), a similar relationship is suggested between first and second language acquisition. Should the reciprocal relationhip between first and second language acquisition be an accurate assumption, second language acquisition could contribute to a better command of the native language and to the overall intellectual development of a child.

The reciprocal relationship between first and second language acquisition can also be observed in the process of word meaning acquisition. In first language acquisition, the process of word meaning acquisition follows a sequence of affective, denotative and conceptual meaning. However, in a second language learning situation, word meanings are not necessarily previously "felt" meanings, as in first language acquisition. Word meanings are acquired in a specific verbal context and denotative may precede affective word meaning acquisition in second language study.

Understanding the denotative meaning of words alone, however, does not necessarily ensure communication or understanding. For example, the denotative meaning of "thrifty," "tight," and "stingy" is "reluctant to spend more money than necessary"; however, the emotions and attitudes associated with the three adjectives, that is, the connotative meanings, are very different. As Rapoport (1975: 128) pointed out, "the choice of the 'right word' or expression in speaking and in writing is often a matter of choosing a word with culturally accepted psychological connotations appropriate for the occasion." Learning the affective meaning of words in a second language appears to follow the acquisition of denotative and/or conceptual meaning which is the reverse of what happens when a child acquires his first language.

It is hypothesized that the two levels identified in the process of word meaning acquisition are also applicable to second language study. A concrete object to which a word refers may be explicitly pointed out or shown. However, associating objects with concrete nouns may result in a prohibitively slow vocabulary acquisition technique in second language teaching and learning. Furthermore, depending upon the level of verbal abstractness achieved by the students, it appears reasonable to suspect that students come to rely more on inferring word meanings from verbal contexts.

In a reciprocal relationship between first and second language acquisition, on the one hand, it is suggested that second language acquisition could contribute to the achievement of conscious control over one's first language; on the other hand, a good command of one's own language is suggested to aid and contribute to the mastery of a related second language. Second language teaching should take into consideration the linguistic and cognitive developmental level of the child. To the extent that a child has acquired learning principles in his first language applicable to second language learning, knowledge of these may aid in learning a second and related language. For example, if a child is capable of inferring the meaning of words from cues of the verbal context, he should be able to apply this principle in second language study.

The proposed reciprocal relationship between first and second language acquisition, wherein second language learning may aid the distanciation process within the first language, and the proposed complementary relationship between first and second language acquisition, wherein competence in the first language may be applicable and transferable to a second and related language, appear to arise from different conditions of learning, different functions of speech and different characteristics of the learners. First language learning begins at birth in an insulated environment where the significant persons in the child's experience speak approximately the same language. Growing up, as J. R. Firth (1964) pointed out, means growing up into language, taking possession of it as a tool of living. While first language acquisition is generally unplanned, it is, nevertheless, an example of successful learning.

Controlling and directing the child's behavior is another dimension of early first language development not common in second language acquisition. At first the adult regulates the child's actions with verbal descriptions and directives which later the child will do himself. Luria (1959) noted that the verbal ability and the directive function of speech do not coincide. For example, the child may learn the word "no" long before he uses it in its directive function. Luria and Bain (1976) found that from two to two-and-a-half years of age the child finds it difficult to co-ordinate internal control with external commands. The directive function of speech starts to regulate behavior during the third and part of the fourth years of life.

The unplanned, successful learning conditions present in the child's first language acquisition, and the mastery of the directive function of speech to regulate his behavior, cannot be entirely reproduced in second language acquisition when this learning occurs in a school environment. Second language learners at school generally have acquired a basic knowledge of their mother tongue; in addition, the second language learner is literate. The characteristics of the learner, his age, reasoning ability and competence in the first language must be taken into consideration while at the same time employing, in so far as possible, the learning concepts that facilitated initial language acquisition.

The conditions of learning a second language, the directive function of speech and the characteristics of the learner are different in first and second language acquisition, yet the processes of first and second language acquisition are only variants within the indivisible process of language development.

Different values for learning a second language have been identified. In this context Goethe maintained: "He who does not know a second language does not truly know his own." Vygotsky (1962) pointed out that "What the child does unconsciously in his own language, he learns consciously in his second language." Bain (1975) wrote: "Words encapsulate the mind. And any single linguistic history is arbitrary. The unilingual thus becomes a victim of a particular tyranny. Personal emancipation resulting from active participation in alternate world views is the practical motive for the efficient study of other languages." The different values attached to learning a second language as noted by Goethe, Vygotsky and Bain may stem from the observation that second language study affects first language acquisition in different ways at different stages in the linguistic and cognitive development of the child. From a longitudinal examination of first language acquisition, another possible value for learning a second language could be that second language study aids the distanciation process in the first language.

The Meaning Component of Words and Cognate Study

An investigation of the extent and limits of semantic overlap of vocabularies in two languages may be clarified by examining the elements of words. A word may consist of three separate but interrelated meaning components: denotative, connotative and conceptual. For example, the denotative meaning of the word "dog" refers to a common domestic animal, the affective meaning depends on whether the individual has had pleasant or unpleasant experiences with dogs generally, and the conceptual meaning, as studied in biology, may be "a carnivorous mammal (canis familiaris) of the family Canidae, kept in a domesticated state by man since prehistoric times." In addition, it is not uncommon for a word to have multiple denotative meanings. For example, "dog", in mechanics, refers to "any of various devices, usually of simple design, for holding, gripping, or fastening something." Ultimately, the extent to which the three meaning components of a word are known will influence the degree or extent of understanding.

Paulhan, quoted by Vygotsky (1962: 146), noted that the sense of a word is a "dynamic, fluid, complex whole, which has several zones of unequal stability. ... A word in a context means both more and less than the same word in isolation: more, because it acquires new content; less, because its meaning is limited and narrowed by the context." According to Paulhan, the sense of a word is "the sum of all the psychological events aroused in our consciousness by the word. Meaning is only one of the zones of sense, the most stable and precise zone. Meaning remains stable throughout the changes of sense."

Although words from two languages may coincide with respect to one of the meaning components, be it affective, denotative, connotative or conceptual, it is unlikely that word meanings are identical in every aspect. In addition, the meaning of a word varies with the concreteness or abstractness of its referent. Words in two languages may not have identical meanings; even within the same language, no two human beings share an identical associative context. Steiner (1975: 198) advanced the thesis that both intralingual and interlingual understanding require a form of translation: "All communication 'interprets' between privacies." Werner and Kaplan (1963: 50), who discussed the general nature of developmental changes in the symbolic process, noted:

> ... we do not believe that consensus with respect to the meanings of verbal symbols requires identity of connotations in the different participants: the only requirement is that the connotations evoked in both addressor and addressee occupy a comparable position within each individual's personal network of meanings.

A second language learner is confronted with the formidable task of acquiring the vocabulary or lexicon of the second language, that is, the denotative, conceptual, connotative and purely affective meanings of words. This task may be facilitated if the learner is able to apply the system of meanings he already possesses in his first language. More rapid learning of a new vocabulary may be achieved if learning is guided from the known to the unknown. By linking the second language vocabulary to the first language, similarities, differences and relationships can be noted. If cognates, or words with similar or identical spelling and similar meaning, are to be efficiently employed in second language learning, the semantic foundation of the first language can and should serve as a basis. With the presence of already prepared and developed meanings of words, the phonological form of a second language word may be coupled to the meaning of the first. In second language learning, words need not be linked to an object-determined perception if the learner is familiar with equivalent words in his first language; rather, the words of one language may simply be linked with words of another. This linking of words between languages is possible to the extent that word meanings overlap. The learner does not need to build a conceptual framework totally separate from that of his first language rather he can add to and integrate his first language system with the second language.

Wüster (1959) maintained that,

> Ein richtiges Verständnis, eine richtige Handhabung der fremden Sprache, ein Denken in dieser Sprache aber ist nicht möglich, wenn man sich nicht das Begriffssystem dieser Sprache als Ganzes zu eigen gemacht und wenn man nicht die zahllosen Unterschiede des fremden Begriffsystems gegenüber der eigenen Muttersprache erfasst hat (Wüster, 1959: 623).

> (A real understanding, a correct manipulation of a foreign language, a thinking in this language is not possible if one has not acquired the conceptual system as a whole of this language and if one does not understand the innumerable differences between the foreign language conceptual system and that of the mother tongue.)

According to Schopenhauer, as cited by Erdmann (1925), a benefit to the learner of a second language is the need to acquire concepts which do not exist in the mother tongue:

> Indem man also bei Erlernung einer fremden Sprache ganz neue Sphären von Begriffen in seinem Geiste abstecken müsse, erlerne man nicht bloss Wörter, sondern erwerbe Begriffe. Aus diesem Grunde ist die Aneignung mehrerer Sprachen ... ein tief eingreifendes Bildungsmittel (p. 129).
>
> (By learning a second language one acquires an understanding of totally new concepts rather than a simple understanding of words. By increasing the number of concepts through second language learning, second language learning constitutes a profound means of education.)

If subject matter is to be taught in a second language, it is necessary to determine the extent to which words and concepts go hand in hand, and the extent to which students already possess the concepts in their first language but lack the vocabulary to express them in their second. In many cases a secondary student or an adult learner will have acquired the concept of an English-French cognate word. Thus, cognate study at these levels may greatly facilitate the acquisition of the conceptual system of the second language.

It may be hypothesized that, by emphasizing cognates to second language learners, there may be initially a rapprochement of the meaning of the cognate words, followed by a differentiation or nuanciation. The acquisition of word meaning in a second language through cognates may parallel the organismic development of moving from a "... state of relative globality and undifferentiatedness towards states of increasing differentiation and hierarchic integration" (Werner & Kaplan, 1963: 7). Initially the English-French cognate meanings may be substantially fused with each other but, as the second language study continues, progressive differentiation may occur and, simultaneously, word meanings may be linked or integrated. The broad meaning may be grasped first; a realization of the finer shades and differences of the cognate meaning may follow.

A Bilingual Language Model

Traditionally the components of language have been described as phonology, syntax, and lexicon. These components appear to interact in a unique way for each language system. For a unilingual person, phonology, lexicon and syntax interact in the lingual communication process. The ability to pronounce is a necessary precondition for oral communication. With the rules of syntax, words are combined into sentences. A word can be the smallest possible unit of communication; that is, it is the smallest unit of speech that has meaning, when taken by itself, but it has the largest number of members. Phonology is the smallest language component, syntax is larger and lexicon constitutes the largest component in language, since there need not be a limitation on thought and knowledge finding expression through words.

It is suggested that during the acquisition of a second language, the phonological system, the syntax and the lexicon of the second language become integrated with the first language counterparts. With related languages, some degree of overlap in syntax, phonology and lexicon exists. The interplay of the language elements occurs between phonology and lexicon, and syntax and lexicon. Words remain in one pool, representing semantic correlation and differentiation within the same language and across languages. Using this model, Steiner's statement seems to be applicable: "The (bi- or) polyglot mind undercuts the lines of division between languages by reaching inward, to the symbiotic core" (Steiner, 1975: 119).

It should be noted that, in this bilingual model, no distinction is made between co-ordinate and compound bilingualism (Ervin & Osgood, 1954). The co-ordinate and compound bilingual distinction appears to be justified only in so far as it refers to the setting and manner in which the second language is acquired. Co-ordinate bilinguals acquire their two languages in a culturally distinctive context; compound bilinguals acquire the facility in two languages in a single cultural or linguistic setting. The co-ordinate/compound dichotomy of the means of acquisition of bilinguality may lead to the assumption that two processes of language development exist rather than one.

Fluency in two languages may cancel the distinction of co-ordinate and compound bilingualism. In tests on translations, the scores of co-ordinate and compound bilinguals did not reveal statistically significant differences (Lambert, Havelka & Crosby, 1958). Ervin and Osgood (1954: 145) noted that "... the very process of two-way translating tends to transform a coordinate system into a compound system." There are additional data that cast some doubt on the usefulness of these terms to describe psychological functions: Kolers (1963: 299) found that subjects "with nearly identical linguistic histories respond differently, while others with different histories respond similarly." It appears that the co-ordinate /compound dichotomy reflects the experience of the individual and associations which he attaches to words, whether intralingual or interlingual.

Vygotsky (1962: 121) advanced the thesis that "word meanings evolve (and demanded that) this insight must replace the postulate of the immutability of word meanings." Steiner (1975: 94) also noted that "words are not the embodiment of invariant mental operations and fixed meanings." Through the acquisition and integration of concepts for which no counterparts are available in the native language, the semantic aspect of words of a bilingual or multilingual individual may become modified and unlike that of a unilingual person. In addition, it is probable that this discrete semantic field of a bi- or multilingual individual occurs irrespective of the co-ordinate/compound bilingual dichotomy. Evidence for this postulate may be cited from bilingual studies dealing with the influence of bilingualism on perception and meaning: Rosenzweig (1961) performed a study comparing word-association responses in English, French, German, and Italian. He found that, across languages, similar associations tend to occur among words of similar meaning; this occurred regardless of differences of verbal forms. Ervin (1961) investigated possible semantic shifts of bilinguals: she examined the color-naming of Navaho bilinguals in comparison with two monolingual groups and found that the categories of color used by the Navaho bilinguals differed systematically from the monolingual norms. She concluded that the bilinguals had integrated the color-systems of both Navaho and English.

Preston and Lambert (1969) examined the functional relations between a bilingual's two languages by employing a bilingual version of the Stroop Color-Word Task. Two sets of processes, color naming versus word reading, were placed in competition by representing, for example, the word "green" in black color. The results of the experiment indicated "... that activation of a set of processes in one language does not make the other language system totally inoperative" (Preston & Lambert, 1969: 301). The integration of two languages may explain the instances of deviation from the norms of either language. In this way the deviations which occur in the speech of bilinguals may be a result of their familiarity with more than one language.

The perception of differences among word meanings in the course of learning a second language, may be responsible for the anomie a learner experiences (Lambert, Gardner, Barik & Tunstall, 1963). Differences are rarely perceived as neutral and value judgments are attached if the individual is affected by the difference. The perception of differences between languages may inhibit the realization of the similarities between different language groups. It is only at a later stage of second language competence that the similarities are perceived. At this point, a higher level of generalization is attained. This is where the promise of second language learning becomes materialized: "So viel Sprachen einer kann, so viel mal ist er ein Mensch" (Erdmann, 1925: 125). (As many languages as one knows, so many people does one become.)

Summary

In summary, the third chapter has examined the reciprocal and complementary relationships between first and second language acquisition. The two levels identified in the acquisition of word meanings, associating objects with concrete words and inferring abstract meaning from verbal context, are assumed to be applicable also to second language learning. In learning a second language, the meaning of words may overlap in one of the semantic dimensions of words, denotative, affective, or conceptual, in two or more languages. It is suggested that learning a second language with cognates may facilitate the assimilation of similarities, since no cognitive restructuring is necessary. However, by learning concepts in the second language for which no counterparts in the first language are available, the semantic aspect of words of a bilingual or multilingual individual may become modified and unlike that of any unilingual person.

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Chapter IV

ENGLISH-FRENCH COGNATE LITERATURE REVIEW

This chapter presents an in-depth review of literature relating to cognates. Researchers, translators and second language teachers have examined cognates of the English and French languages. According to the degree of similarity or difference of semantic overlap, cognates have been described as "good" or "deceptive". Since some researchers believe that deceptive cognates constitute a potential source of misunderstanding and confusion, cognates have not been exploited in second language teaching and learning to the extent that may be warranted. It should be noted that a detailed lexical comparison of the English and French languages showed that the ratio of cognates to deceptive cognates is approximately 11,000 to about 950 or eleven to one (Hammer & Monod, 1976). The chapter concludes with a discussion of the potential use of cognates in second language acquisition.

Historical Investigation

The English and French languages have long enjoyed political, cultural, scientific and literary contact and share, with respect to lexis, an extensive vocabulary. Vocabulary similarities exist as a result of 1) the use of Latin and Greek loan-words in the form of radicals, prefixes, and suffixes in the English and French languages, 2) the Norman influence, dating from the eleventh century, which enriched the English language with many French words, 3) the terminology of modern technology common to both English and French, and 4) common lexical borrowings from other languages.

Examining the influence of English on French from a purist's point of view, Bonnaffé compiled the dictionary L'anglicisme et l'anglo-américanisme dans la langue française (1920). Paul Barbier (1921) studied loan-words from English in eighteenth century French and described the influence of 18th century English on written French (1922). Mackenzie (1939) investigated "les relations de l'Angleterre et de la France d'après le vocabulaire". He identified 4,500 anglicisms found in French and 6,000 gallicisms found in English and determined the points in time when these cultural, technical or scientific terms were introduced into English or French. Mackenzie further showed that French influence has been considerable in the language of the sciences; this, he concludes, is particularly evident in medicine, geology and chemistry as attested by lexical borrowings.

Deceptive Cognates

Deceptive cognates, or words which, because of their similarity of spelling with English words, might mislead the unwary as to their meaning, have been of interest to translators and second language teachers alike. In order to prevent misunderstandings in translations between the English and French speakers which can "... en politique internationale entraîner les plus catastrophiques conséquences" (Boillot, 1956: 7), several word lists of deceptive cognates have been compiled: Boillot published Le Vrai Ami du Traducteur in 1930; Jules Derocquigny investigated deceptive cognates in 1931 in Autres Mots Anglais Perfides ; Maxime Koessler and Jules Derocquigny compiled a word list of French-English deceptive cognates entitled Les Faux Amis ou Les Pièges du Vocabulaire Anglais in 1946. About 500 deceptive cognates are listed in this work which incorporates illustrations of cases where deceptive cognates have been incorrectly translated. Koessler and Derocquigny's dictionary of Les Faux Amis provides examples taken from translations of pre-twentieth century English literature. This work has, except for its historical and scholarly interest, little practical value for second language teaching in the classroom.

Charles Downer (1927) investigated deceptive cognates and compiled a list of these words for students of French. He abandoned the idea of compiling a book of deceptive cognates as he found it impossible to make such a work complete and perfectly accurate, and because the English and French languages were influencing each other so rapidly that semantic distinctions, which formerly could be made with positive assurance, were no longer valid. However, twenty years later, Robert Seward published a Dictionary of French Deceptive Cognates which was not specifically intended for translators but, as the author states, "... this list has been made partly as a suggestion to the makers of notes and vocabularies for the classroom texts" (1947 : 7). His dictionary, although not specifically compiled for school use, could be employed in the teaching and learning of French as a second language.

Deceptive cognates constitute a potential source of misunderstanding and confusion. Unfortunately, there seems to be a void in the literature dealing with deceptive cognates as they relate to negative transfer. Where there has been an attempt to resolve this void, researchers disagree. Osgood (1949) studied the phenomenon of transfer in human learning and proposed a paradigm with respect to negative transfer. The empirical law associated with this paradigm was expressed in the following way:

> Where stimuli are functionally identical and responses are varied, negative transfer and retroactive interference are obtained, the magnitude of both decreasing as similarity between the responses increases (Osgood, 1949: 135).

This paradigm appears to be applicable to deceptive cognates. However, Debyser (1971: 53) claimed that deceptive cognates are probably the least enduring types of interference between two languages because "... les effets au niveau du message sont trop perturbateurs pour ne pas être rapidement corrigés." Current literature has failed to reconcile the two positions. As Scatori (1932) suggested, deceptive cognates have received too little attention.

The deceptiveness of English-French cognates may be visualized along a continuum, that is, cognates differ with respect to the degree with which semantic shifts have occurred in the two languages. Bugelski and Cadwallader (1956), who re-examined Osgood's empirical laws on transfer, noted that, when dealing with a given stimulus, the most devastating thing may not be a shift to a very different response, but a shift to a response that is only slightly different. For example, Chantal (1969: 41) listed the main meanings for the word application in English and standard French (SF).

English	standard French
1. application of a theory	1. application d'une théorie
2. application of a poultice	2. application d'un cataplasme
3. application for a job	3. ----------

and noted "whereas English and SF share meanings 1 and 2, SF application does not have meaning 3 of its English counterpart, which is rendered by 'candidature'". It may be more difficult for a native French speaker to detect when an English speaker uses a French word with a meaning it has acquired from an English cognate than an incorrect vocabulary choice.

The Use of Cognates in Second Language Acquisition

The potential value of cognates as a means of effecting more economical second language vocabulary learning has been recognized, and researchers have undertaken the task of determining the extent of the French element in English. Eddy (1926: 271) investigated the French element in English "to secure information as to the potential value of French for increased control over the English vocabulary, with the ultimate purpose of paving the way for the utilization of this value by English-speaking students of French". She examined the etymological origins of the 10,000 words in Thorndike's The Teacher's Word Book (1921) and found that 3,868 or 39 per cent of the words have entered the English language directly from French. However, Eddy made no distinction between source words recognizable and unrecognizable in form by high school students, nor did she determine whether or not these words are familiar to high school students.

Gragg (1942) studied the contribution of high school Latin, French and Spanish to English vocabulary building. Based upon a study of the relationships of words close enough in form and meaning to assist students in learning the new English words through transfer, he found that the potential contribution for French is 38 per cent, of which 29 per cent have related words in pre-high school English. Gragg concluded that "students of foreign language in the high school have two bases for understanding new words: That of related words in pre-high school English, and that of related words in the foreign language" (Gragg, 1942: 622).

Chirol (1973) undertook a semantic analysis of approximately 2,500 French words used in English. She wrote:

> ... nous empruntons à l'étranger des choses qui nous font défaut et nous paraissent particulièrement utiles, pratiques, enviables, ou bizarres, curieuses, comiques (p.13). ... ce que l'anglais emprunte à la France à travers ses mots c'est un art-de-vivre et un savoir-vivre (Chirol, 1973: 32).

Chirol maintained that French technical and scientific vocabulary was completely assimilated in English. However, where the vocabulary refers to "un art-de-vivre (mode, cuisine, arts, relations sociales, etc.)" (Chirol, 1973: 29), the words tended to keep identifying features of their French origin. She explained this phenomenon:

> Historiquement, le français a été la langue de la noblesse anglo-rormande; par la suite il est resté celui des cours et de la diplomatie; cet héritage reste visiblement inscrit dans nos inventaires et plus encore dans les contextes où s'inscrivent ces mots. (Le mot "français") apparaît comme la marque d'une culture d'importation qui est l'apanage d'une élite mais absolument refusée par le 'peuple'. Le mot "français" est un produit de luxe, d'importation étrangère et qui n'a pas cours sur le marché indigène (Chirol, 1973: 26-27).

On the basis of similarity in spelling and meaning, researchers have suggested that there should be a high transfer value of French words to the corresponding words in English. However, the actual amount of transfer can only be determined by scientific and systematic experimentation. Verifying studies in this area of transfer remain few.

Limper (1932) performed a study dealing with student knowledge of some English-French cognates. The purpose of his study was to determine whether or not French words in English are recognized by a large percentage of students; he intended to help textbook writers to determine which words have to be listed in a glossary accompanying a reading text. He chose 1,499 words from the Vander Beke's French Word Book (1929) which have the same or similar spelling and meaning as the corresponding English words and designed simple-recall tests. Students were asked to write the English word which the French word suggested to them. Words whose English cognates did not appear in the first five thousand words of the Thorndike (1921) list were arranged in multiple choice tests to determine whether students knew the English meaning of the French word (Limper, 1932: 41). These tests were administered to grade nine, grade eleven and first year college students in a number of schools in the mid-west of the United States. The sample was composed totally of students who had not studied French previously. Limper found that the recognition of cognates cannot be taken for granted, nor can it be assumed that their cognate meanings are understood. Both factors could limit the possible utility of cognates in second language instruction and learning.

West (1934) addressed the same issue. He explained that the degree to which cognates may be recognized and understood depended upon the context, the age of the student, his vocabulary power in his mother tongue and upon the amount of practice he has had with cognates. West advocated that students should be taught to guess the meaning of unfamiliar lexical items but to do so cautiously and wisely.

Although English-French cognates received initial attention in the past, little research has been done recently. Eichler (1972) investigated the effects of cognate usage on foreign language speaking proficiency (German, French and Spanish). Specifically, he sought to answer the following question. "Is there a difference in effectiveness between cognate and conventional usage as measured by the French MLA pre- and post-speaking tests giving scores in mimicry, oral reading, direct response, and free description?" (Eichler, 1972: 7). No statistically significant differences were found in the analyses, but mean differences in favor of the cognate group were observed on the free description variable. Eichler wrote that "any definite conclusions based on effectiveness relative to cognate usage would be premature. In view of the movement of the free description scores in the direction projected by the research hypothesis, it was felt that additional time might eventually have produced significant differences" (Eichler, 1972: 63).

In 1975 new impetus to the pursuit of the investigation of the possible utility of English-French cognates resulted from a detailed English-French lexical comparison and compilation of approximately 11,000 cognates. A study (Hammer, 1975) was conducted to determine whether grade ten students were able to utilize English-French cognates in listening and reading comprehension of French. As part of the study, students were taught the phonemic and spelling alterations influencing English-French cognates.

Seventy-four students with four years of French, comprising three intact grade ten classes, participated. Each intact class was randomly assigned to one of the three possible groups: Group A, the control group, Group B, which received instruction in the oral recognition of cognates, and Group C which received instruction involving the written recognition of cognates. The pretest - posttest control group design (Campbell & Stanley, 1973) was employed.

It was found on the pretest that without any prior cognate training, the three group means on the written cognate recognition test (WCRT) were within a very close range 19.58, 19.44, 19.52 whereas there was a larger range among the group means on the oral cognate recognition test (OCRT) 17.21, 18.88 and 18.00 respectively. This observation supported Hammer's theoretical assumption and that of Mackey (1972), that written cognates, which share the graphemic, lexical and semantic realm in two vocabulary systems, are more uniformly identified than orally presented cognates which share the lexical and semantic realm but are more difficult to identify because of phonetic differences. In silent reading of the WCRT, phonetic differences may not figure as predominantly as in the OCRT.

Statistically significantly improved performances on the oral- and written cognate posttests were found for the experimental groups but not for the control group. In addition, the written cognate recognition group performed statistically significantly better, not only on the written cognate posttest, but also on the oral cognate posttest. The reverse transfer effect from the oral recognition of cognates to reading recognition and comprehension of cognates was not found.

To determine whether there is any relationship between English vocabulary power, as measured with the Quick-Scoring Vocabulary Test (QSVT), and the ability to recognize cognates in an oral and/or a written setting, the test scores on the QSVT, WCRT and OCRT were correlated. The correlations of the QSVT and the cognate tests were statistically significant with one exception. The correlation of the QSVT and WCRT posttest for group B (the oral cognate recognition group) was not statistically significant. It appears, therefore, that English vocabulary power is not the only necessary precondition for cognate usage in the oral acquisition of a second and related language. It was strongly suggested, however, that it is helpful in conjunction with the ability to recognize cognates.

Summary

Agreement has been found on the following points in studies dealing with English-French cognates: 1. the ratio of cognates to deceptive cognates is approximately eleven to one, 2. cognates are regarded as an efficient vocabulary acquisition device, and 3. cognates are suggested to be most useful in reading a second language.

The fifth chapter presents a discussion of the development of an English-French cognate unit. The chapter also addresses the question of readiness for language learning when using cognates as the teaching vehicle. The appropriate age for cognate study is suggested by examining the learner characteristics, Claparède's law, and the nature of the English-French cognates (Hammer & Monod, 1976). The objectives of the teaching material included in the English-French cognate unit are examined. The chapter concludes with a presentation of some teaching suggestions for the cognate unit and an indication of the amount of time which could be devoted to the unit.

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Chapter V

THE DEVELOPMENT OF A COGNATE APPROACH

Design of an English-French Cognate Unit

The review of cognate literature showed that a few researchers have been interested in the deceptive aspect of cognates, some in the extent of semantic overlap of cognates and others in the possible utility of cognates. This information has not been systematically integrated and remains scattered in various scholarly journals, books and theses dealing with the topic of cognates. An English-French cognate unit was designed, in part, to provide a systematic exposition of cognates, tying various research findings together in an orderly fashion. A copy of the English-French cognate unit is listed in Appendix A of this study.

Similarities and differences between languages should be pointed out explicitly to students. It has been noted by various writers (Limper, 1932; Johnston, 1939; Stephens, 1960) that transfer of common elements from one language to another may not automatically occur in second language learning. A possible explanation of this phenomenon could be that the ability to transfer is related to the individual's level of cognitive development. That is, competence in one language may influence the ability to transfer applicable elements to a second. For French language acquisition by an English speaker, cognate study requires that the learner know the cognate word in his first language and be able to perceive the similarities between the two language systems. Thus, the amount of transfer is not only dependent upon previously acquired knowledge but also upon the quality and flexibility of an individual's cognitive structure (Klausmeier, 1969). By circumstance the learner's exposure to the second language normally is limited. From a relatively small number of lexical items, the learner cannot be expected to know *a priori* that the English and French languages share approximately 11,000 words which may be defined as cognates. Stephens (1960), who investigated transfer of learning, claimed that the amount of transfer induced could be increased by bringing out the feature to be transferred.

In an effort to obtain maximum possible positive transfer or application of first language knowledge to French second language acquisition, the English-French cognate unit was constructed on the rationale that it is important to emphasize the similarities between the English and French languages. Since it is pedagogically unsound to assume that the learner knows the teaching material, the cognate unit consists of components probably learned previously, as, for example, some characteristics of the parts of speech, the English-French cognate word meaning in English, some meanings of suffixes, using context clues to infer unfamiliar words, and types of sentence construction.

Should these elements of commonality not be known in English, the student can learn them in his second language study and transfer could occur on the basis of the underlying principles of word formation, vocabulary acquisition devices and syntax.

The concepts to be taught and the order in which the material was presented in the English-French cognate unit were carefully arranged. Since the English-French cognate unit was designed to foster learning of vocabulary and syntax to be used in unfamiliar reading material, the objectives of reading skill development were pursued using three strategies for vocabulary acquisition: 1. the use of cognates, 2. the use of word part analysis with emphasis on a) the meaning of suffixes and b) the morphological characteristics of suffixes with respect to cognates and 3. the use of context clues. The syntactic component of the English-French cognate unit was structured inductively. It begins with a review of some characteristics of the parts of speech, proceeds with possible combinations of the parts of speech in sentences, and concludes with the semantic component of syntax, i. e., how a change in syntactic structure may be related to a change in semantic structure. Essentially, thus, the English-French cognate unit deals primarily with lexical items (words) and syntactic structures wherein the lexical items are placed.

The cognate unit is self-contained in the sense that all questions in the unit may be answered from the teaching material included in the lessons. The questions are intended to teach the content of the unit and deal primarily with the information about English-French cognates and the recognition of cognates in the selected French excerpts. The English-French cognate unit contains specific factual information, which can be applied, analyzed and synthesized in responding to the questions which conclude each lesson.

Questioning by the teacher, either prior to or following the reading of an assignment, has been regarded as the most common and effective technique in the guidance of reading behavior (Weintraub, 1969). However, Herber and Nelson (1975) suggested that questions which require the use of the reading skills necessary for answering the questions do not really teach the student these skills. They proposed a simulation strategy in which the instructor writes the answers to his own questions and asks the student to determine if the answer can be supported by evidence from the reading text. The questions in French, on the French excerpts in each lesson, were designed to be used as Herber and Nelson (1975) suggested.

The cognate unit may be further explained as a guided approach to discovery learning. The student following the English-French cognate unit, is required to respond in writing, or otherwise restating rules, principles or steps necessary for the solution of learned concepts in the cognate unit. Guidance and progression is thus built into the structure of the unit. This approach was studied by Gagné and Brown (1961), who examined factors in the programming of conceptual learning. They concluded that "guided discovery was found to be more effective than the discovery method or the rule and example method" (p. 319).

Following initial construction, subject matter consultants reviewed the organization and instructional material included in the English-French cognate unit. Two French professors in the Department of Romance Languages at the University of Alberta examined the French material for its accuracy and correctness, and two professors of the Department of Secondary Education in modern language instruction and in teaching secondary English verified the English material included in the cognate unit.

The Appropriate Age at Which to Study a Second Language with Cognates

In an attempt to determine when a student can benefit from the French element in English, first language acquisition was examined from a developmental perspective. The foundation of a theoretical framework for cognate study was developed out of an examination of first language acquisition and an examination of the distanciation process within the symbolic vehicle (see chapter two). With reference to second language acquisition (see chapter three) a reciprocal and a complementary relationship were suggested to exist between first and second language study. Second language learning may facilitate the distanciation process in the first language with respect to word and sentence, sound and meaning, and symbol and referent. With cognate study knowledge of one's first language may facilitate, through transferable elements, the acquisition of a related second language. However, the degree of complementary relationship may depend, not only upon the extent of commonality between two related languages, but also upon the degree of cognitive development of the student. The optimum age for second language instruction and learning is suggested to be generally during school years where both of the following apply: 1) second language learning may facilitate the distanciation process of the first language where distanciation is incomplete or retarded and 2) where cognitive development has reached the stage where the greatest possible transfer of knowledge from first language to second language learning can occur. Second language learning may possibly aid and accelerate the distanciation process of word and sentence, sound and meaning, and symbol and referent the most, if second language teaching starts with elementary school children; however, the greatest possible transfer of applicable knowledge from first language to second language learning is suggested to be with high school students.

To exploit similarities of related languages, the appropriate age level for cognate learning may be that of students in secondary school years. University students and interested adults could also be an appropriate age group for studying a second language using a cognate approach. These tentative conclusions are based on the assumption that high school students and educated adults could benefit most from cognate study because of the characteristics of the learner (he or she is older, more mature, and, generally, has a greater attention span, power of analysis and language competence). Moreover, the younger child mimics well, but as the child becomes able to learn and apply rules, cognate language analysis provides explanations which may help him to recognize and to remember facts of a language for a considerable length of time. However, using the post elementary school population probably minimizes the degree to which second language study will facilitate the distanciation process.

Piaget, as quoted by Wadsworth (1971), identified two processes, assimilation and accommodation, which account for the cognitive growth and development of the human being. Schemata, which develop over time and with experience, are intellectual structures into which events are organized according to common characteristics as they are perceived by the organism. Awareness of similarities and differences appears to be essential for the formation of concepts. Assimilation, according to Piaget, is the cognitive process by which the individual person adds new perceptual matter or stimulus events into existing schemata or patterns of behavior. It accounts for the growth of schemata. Accommodation, according to Piaget, is the creation of new schemata or the modification of old schemata. Accommodation thus accounts for the change of schemata.

These two processes, assimilation and accommodation, appear to operate in second language acquisition, where assimilation may be equated with the acquisition of similarities, and accommodation with the acquisition of differences. Claparède's (1916) law specified the order in which the processes operate, that is, awareness of differences precedes the awareness of likeness, or accommodation precedes assimilation. Vygotsky (1962: 88) explained this sequence of Claparède's law by suggesting that "the awareness of similarities requires a more advanced structure of generalization and conceptualization than awareness of dissimilarities." If this assumption is correct, this argument would provide another reason to use high school and post high school students as the appropriate age group for cognate study.

In order to arrive at a determination of the appropriate age levels for studying French through the use of cognates, the following learning concepts are assumed:

1. words that are frequently used in French are words of high utility; 2. if these words also have cognates in English, they will be most appropriate for teaching utilitarian French to Anglophone students; and 3. if these words are in common usage among various age groups of French speakers, they will not be too advanced for English speaking high school students or university students.

A list containing this type of words was compiled by Hammer and Monod (1976) in the _English-French Cognate Dictionary_ . Frequency and utility were determined using the studies of Mackey, Savard and Ardouin (1971) and those of Savard and Richards (1970). These words form the basis of the English-French cognate unit. It should be noted that the criteria of high frequency and high utility in French does not necessarily mean that these words are frequent in English. However, it is assumed that the English-French cognates identified with Mackey _et al._ 's and Savard and Richards' word lists correlate positively with the vocabulary knowledge in English of secondary and university students.

Objectives of the Teaching Material in the Cognate Unit

The French Excerpts

It is dangerous for the student to think that there exists only one "correct" interpretation of a word; polysemy of words is the rule rather than the exception. What can be named (things, characteristics, events, conditions, relations, etc.) is infinite whereas the number of words is limited. Thus, the same word will express different meanings in different contexts. Darmesteter wrote that "... words by themselves are but uncertain guides, and need the setting of circumstances which, like the key in music, determines the value of the signs" (Bréal, 1964: 287). To understand words means to infer or guess their meaning from a context. For these reasons short French excerpts were used in the English-French cognate unit. They provide a context learning situation for vocabulary acquisition.

Correct usage and delicate nuances can come only from a thorough knowledge of the meaning of words. It may be quite difficult to explain the semantic difference between the French and English word "suggestion" to the second language learner who may be unaccustomed to close vocabulary analysis. To acquire the finer shades in meaning, reading authentic French material can provide the linguistic context necessary to learn the denotative and connotative aspect of words.

Cognate Word-ending Regularities

English-French cognates of high frequency in French, as identified by Savard and Richards' (1970) "indices d'utilité du vocabulaire fondamental français", were employed as example words illustrating the cognate word-ending regularities. They were provided to aid the learner in recognizing and memorizing word-ending regularities.

Grammar Instruction

Certain technical grammatical notions were included in the English-French cognate unit. Reasons for the inclusion of this non cognate concept approach were several:

1) It was found in a previous study of cognates (Hammer, 1975) that students were unable to distinguish between parts of speech, and thus could not meaningfully interpret cognates in the French excerpts. Vygotsky's (1962: 100 - 101) studies showed that the study of grammar is of paramount importance for the conscious control of language operations.

2) Shawl (1969) found that students who were given explicit statements about syntactic composition and interrelationships performed noticeably better ($p < 0.01$) in reading than students who did not receive these statements.

3) Chastain and Woerdehoff (1968) also found a significant advantage in reading ability favoring a group receiving an explanation in English of grammatical principles.

4) The success of second language learning may depend upon the individual's sensitivity to the functions and arrangements of words in a variety of contexts. Carroll and Sapon (1959) identified this ability to handle "grammar" as

an important variable in language aptitude. It is assumed that this ability can be taught.

5) The grammar included in this cognate unit is basic and practical rather than exhaustive, and the learner is given opportunity to apply his grammatical knowledge to a variety of French excerpts.

The Use of Two Languages

The cognate unit was written in both English and French. This procedure was selected on the following grounds.

1) Although the teacher may try to increase the relevance of the second language through a variety of creative language experiences, second language learning in the classroom is artificial. Lambert _et al._ (1963) found that those students who use both their languages in cognitively demanding situations perform better than those who do not.

2) Providing some grammatical instruction in French gives the learner an additional opportunity to practise cognate recognition and comprehension.

3) Switching from one language to the other may result in a greater degree of cognitive flexibility (Rogers, 1976; Bain, 1975; Jakobovits, 1968). Jakobovits listed "mental flexibility, a superiority in concept formation, and a more diversified set of mental abilities" as a possible result of bilinguality (Jakobovits, 1969: 82 - 83).

The English-French cognate unit, based on the similarities of the English and French languages, aims at producing a level of proficiency in reading French. Further, it is designed to produce this efficiency with a minimum outlay of time. If the learner relies on his English knowledge to help him acquire French as a second language, the rate of learning should be accelerated. However, the extent to which this objective can be achieved will depend to some extent on the characteristics of the individual learner, the teacher, the learning context, and the tested validity of the cognate approach.

Teaching Suggestions for the English-French Cognate Unit

The self-instructional quality of the English-French cognate unit allows for modifications for different classroom situations and presentation styles.

The ten example words illustrating the cognate word-ending regularities in the English-French cognate unit could lend themselves to phonetic exercises. The necessary phonetic instruction to facilitate the oral recognition of cognates was not included in the cognate unit. Only if the learner knows the sounds associated with the international phonetic symbols would a written phonetic lesson be of any help to him or her. However, the teacher could explain a few phonetic rules, as, for example, the *é* is pronounced /e/, the *u* as /y/, *ou* as /u/, the rules for nasalization, etc. With these phonetic rules, the student could try to pronounce the cognates in French.

Another alternative to enliven the study of the cognate word-ending regularities could be through a game of definition. One student would read the definition, while the others would try to guess the cognate. If no one finds the answer, say after thirty seconds, the cognate word is supplied. If a student guesses the appropriate cognate he or she may read the next definition. The benefit of such an exercise would be that the student who reads the definition has to speak up and the others have to listen and try to understand French without the help of the written word. Allowance has to be made, if the cognates are used in such a way, that the definitions of the cognate words were not expressly written for the purpose of guessing the word.

Lesson one, definition of cognates and their characteristics, explains the essential nature of cognates. This information was extracted from a detailed and systematic comparison of the English and French vocabularies. Sixteen cognate word-ending regularities account for 5,613 words in the cognate dictionary (Hammer & Monod, 1976). The endings are worth memorizing. Everything else in the cognate unit can be modified to suit the teacher and students. For example, if the excerpts to practise the recognition of cognates do not interest the students, other selections of genuine French texts can be chosen. Similarly, different example words, illustrating the cognate word-ending regularities, can be selected from the English-French cognate dictionary (Hammer & Monod, 1976).

The presentation of the articles, pronouns, prepositions and conjunctions in French should be explained if the unit is used at the secondary school level. Grade ten students in their fourth year of French second language study may experience difficulty with the parts of speech presented in French. For example, it could be explained that in French the three forms for the definite article: singular and plural, masculine and feminine, and the contracted article l' which is used irrespective of gender, correspond to the English "the".

The questions at the end of each lesson are based on the material in the lesson. Questions like "how many words does a particular cognate word-ending apply to?" should highlight the extent of applicability of the given word-ending regularity. Questions on the content of the excerpts are used to verify comprehension. If a student works conscientiously through a lesson, the questions at the end of each lesson could be done as a quiz.

The amount of time spent per lesson could vary, depending upon the cognitive ability and the interest generated in the study of cognates. For example, if a French excerpt is read out loud in class, unfamiliar words and/or sentence constructions are explained and questions are posed to verify comprehension, this exercise could last a forty minute class period. The presentation and explanation of the parts of speech presented in French could also take a class period of forty minutes. Students could read aloud the material presented, for example, on the conjunction, thereby practising their French pronunciation; translation and some explanations may be needed for comprehension. If the example words in the word-ending regularities are used for pronunciation drills and/or a game of definition, a forty minute class period could be devoted to this exercise. Depending upon how the lesson is presented, a lesson in the English-French cognate unit could take more time than one forty minute class period.

The amount of time which could be devoted to the cognate unit may depend not only upon the presentation styles, that is, whether the unit is used as a self-instructional unit or is modified for classroom presentation, but also upon students' proficiency level in French and their knolwedge of grammar. During the piloting of the unit with individuals or small groups, the minimum required time to read and to answer the questions was found to be half an hour per lesson.

Summary

In summary, this chapter examined the reasons for constructing the English-French cognate unit and the population for whom it is intended, as well as the kind of teaching material included. The cognate unit contains a systematic exposition of cognates. The similarities of the English and French languages in syntax and lexicon are explicitly pointed out. The appropriate age group to study a second language with cognates is suggested by taking into consideration the characteristics of the learner, his cognitive abilities, and the characteristics of cognates. The teaching material in the cognate unit includes French excerpts to provide a context learning situation for cognate recognition and vocabulary acquisition. Cognate word-ending regularities constitute another technique to facilitate positive transfer. Some teaching suggestions and an indication of the amount of time needed for the English-French cognate unit were provided.

In chapter six the experimental studies testing whether the study of French by Anglophones can be facilitated and accelerated by the use of cognates are presented. The results of two separate testings are summarized. The two testings include one study at the University of Alberta and an on site adninistration in the Edmonton Public School.

Chapter VI

EXPERIMENTAL TESTING OF COGNATES

The efficiency of second language acquisition through the use of cognates has not yet been fully explored. This is attested by the dearth of literature dealing with this topic. However, intuitively, cognates have been considered as an efficient approach to second language study. For example, Rapoport (1975: 109) wrote: "Acquaintance with cognates and some knowledge of the way words change in evolving languages are frequently of considerable help in learning a language related to one's own."

From an examination of the dynamics of first and second language acquisition (chapters II and III), the theoretical framework developed for cognate study takes into consideration the developmental aspect of word meaning acquisition, conceptual meaning acquisition and cognitive growth. It becomes apparent, within the theoretical framework, that the efficient use of cognates presupposes a certain cognitive level and an acquaintance with the cognate word in the first language, which are assumed to be positively related to age and schooling.

From an examination of the nature of cognates it was suggested that the denotative and/or conceptual meaning overlap may justify the use of cognates in second language teaching and learning. Since there are not only "good" but also "deceptive" cognates, students have to be made aware of this fact. Limper (1932) and Hammer (1975) found that the recognition of cognates may not be taken for granted; similarities of related languages should be pointed out explicitly to the students. The familiarity with the meaning of the cognates is related to a student's first language competence. The English-French cognate unit used in this study was developed taking the semantic overlap of cognates, the existence of deceptive cognates, the recognition of cognates and the familiarity of the meaning of cognates into consideration.

A short description of the experimental treatment and the testing instrument selection is given prior to the reporting of the results obtained in testing the effectiveness of the cognate unit as a learning vehicle.

The Experimental Treatment

The experimental curriculum used in this study consisted of an English-French cognate unit. A copy is included in Appendix A. The unit consists of a vocabulary component (cognates and instruction on ways of identifying parts of speech) and a syntactic component. In order to facilitate the recognition of English-French cognates in reading, the student is to learn 1) the definition, characteristics and word-ending regularities of English-French cognates, 2) some characteristics of the French nouns, articles, pronouns, verbs and auxiliaries, adjectives, adverbs, prepositions and conjunctions, 3) how to use context clues in word recognition and comprehension, 4) how to recognize the main elements of the sentence and 5) how to understand sentence structure.

The English-French cognate unit consists of seven lessons. The first lesson presents the essence of English-French cognates and their characteristics. Lessons two to six consist of a grammar section for learning some characteristics of the parts of speech, word lists illustrating the English-French cognate word-ending regularities for memorization and French excerpts for practising recognition of and comprehension with cognates. Lesson seven shows how the parts of speech previously studied are arranged in sentences. The major focus of the English-French cognate unit is on the similarity of the English and French languages with respect to vocabulary (cognates) and syntax.

Testing Instrument Selection

The Educational Psychology Testing library at the University of Alberta, the director of the "centre international de recherches sur le bilinguisme" at Laval University, The Ontario Institute For Studies in Education, and the Department of Education of the Province of Alberta were consulted about available French cognate and reading tests. A number of tests were considered as possible assessment instruments.

To assess the effectiveness of the cognate approach, an English-French cognate test was both desirable and necessary. At present, such a standardized English-French cognate test is not available. However, Hammer (1975) developed a four-option multiple-choice French written cognate recognition test (WCRT), which consisted of alternate forms part 1 and part 2. In this WCRT the syntactic structures of the corresponding sentences in part 1 and part 2 are the same. The vocabulary was limited to lexical items contained in the first eleven lessons of *Voix et Images de France* covered by grade ten students with four years of French instruction. The WCRT is further delimited to the use of selected English-French cognate word-ending regularities identified by Hammer. Three sentences with negative or low biserial correlation on the pilot administration were eliminated, thus leaving twenty-seven sentences in each test. The Kuder-Richardson 20 internal consistency reliability for part 1 was 0.59 and for part 2 was 0.57. The Pearson product-moment correlation between part 1 and part 2 was found to be 0.77. Detailed information about the test construction, item difficulty, biserial correlation and item reliability of the WCRT is available in *The Role of English-French Cognates in Listening and Reading Comprehension in the Learning of French as a Second Language* (Hammer, 1975). In order to establish the content validity of the test, an associate professor from the Romance Language Department at the University of Alberta read the test and examined the possible multiple-choice responses. The resulting opinion was that this written cognate recognition test was considered to be too easy for the first year university French students involved in this study and for this reason was rejected as an assessment tool. However, as an alternative instrument, the WCRT was used in one of the experimental testings for grade ten students (teacher 3) reported in this chapter. A copy of this test is listed in Appendix D. The Canadian Achievement Test in French, of which part III measures reading comprehension, from the Department of Educational Research, The Ontario College of Education, was out of print and no longer available.

Of the available French tests the Pimsleur French Proficiency Test, the Achievement Examination for Secondary Schools, and the MLA - Modern Language Achievement Test were considered appropriate for use in the experiment. The MLA - Cooperative Foreign Language Reading Test in French, which was designed for use in secondary schools and colleges, was selected as an assessment tool. Two equated test forms were available. A lower level, designed for the first and second years of language learning in the secondary schools, consisted of Form LA and LB. The higher level, designed for the third and fourth years of language learning in the secondary schools consisted of Form MA and MB. The two levels of the tests can be equated in that,

"... a score on a test at one level can be converted to a score on the same test at the other level" (MLA Handbook, 1965: 15).

Standardization information and statistical characteristics of the MLA - French test are given in the Handbook of the MLA - Cooperative Foreign Language Test (1965). It is stated in the handbook (1965) that,

> ... a random sample of 2000 high schools (including public, independent, parochial, and special) was drawn from a list of 23,537 secondary schools in the United States ... (and) ... a random sample of 500 colleges was drawn from a list of the 1987 colleges in the United States. Of the 2000 secondary schools, 1210 (60.5 per cent) submitted usable data for analysis; of the 500 colleges, 425 (85 per cent) returned usable data (p. 12 - 13).

The reported test reliability of the French reading test was for Form LA, 0.93 and 0.91 for Form LB, and, for Form MA, 0.90 and 0.91 for Form MB (MLA Handbook, 1965: 23).

It should be noted that a possible limitation of the MLA - French reading test is that the test does not measure specific knowledge of English-French cognates. The English-French cognate density in the test has not been controled. For the tests applied in the case of teacher number three, an additional delimitation was placed on the experiment. In this experiment the French MLA reading test Form LA and LB was replaced by a cognate measuring instrument, the written cognate recognition test (WCRT), part 1 serving as the pretest and part 2 as the posttest. The delimitation arises from the fact that while there are nearly 11,000 English-

French cognates, they comprise only a small fraction of the total of either the French or English lexicon.

Jewell's (1969) Reading Comprehension Test, an English Reading Test, for Senior High School Students in Large Urban Areas in Alberta was selected as a covariate. Permission to use this test was obtained from the author. Documentation for this test was supplied in a test manual. The internal consistency coefficient for the total tested group in Jewell's validation was 0.85.

Procedure

A quasi-experimental non-equivalent pretest-posttest control group design (Campbell & Stanley, 1973) was employed. Intact classes were randomly assigned to the control or the experimental condition. The English-French cognate unit served as the experimental treatment. The effectiveness of the English-French cognate unit was assessed by students' performance on the standardized French reading comprehension test, the MLA. In the study with university students the lower level of the MLA French reading test, Form LA was used as the pretest and the higher level, Form MA was used as the posttest. The English reading comprehension test designed by Jewell (1969) was also administered. Permission to perform the study in the French second language programs was obtained.

The following null hypotheses were tested:

1. There is no significant relationship between the scores obtained on the English reading comprehension test and performance on the French reading comprehension pre- and posttests.

2. There is no statistically significant difference between the means for the control and the experimental groups on the French reading comprehension posttest.

The computations involved in the analysis of the data were performed on the University of Alberta Amdahl computer, using programs from the computer library of the Division of Educational Research Services. A probability value of 0.05 was used to determine statistically significant results.

6

University Level Testing

A Study with French 205 Students

Two classes of university students enrolled in a French 205 reading course participated in this study. University students were selected because they were assumed to have, on the average, well developed vocabularies and a good command of the English language. One control group and one experimental group were required. Randomly were the two classes assigned to the control or experimental condition. Each group consisted of nineteen students. For information, a detailed description of the sample is included in Appendix C. The students in the experimental group received a copy of the English-French cognate unit while the students in the control group did not. The experiment lasted from October 22 until December 1, 1976, including the pre- and posttest administration.

Results and Interpretation

With pre- and posttest measures, using alternate forms of the test, it is important to determine the extent to which the measures are correlated. A high correlation between Form LA and Form MA of the MLA French reading test is required in order that the tests be regarded as parallel. The correlation of Form LA and MA of the MLA - French reading test for the control group was 0.88, which was significant at the 0.001 level. The correlation coefficient between Form LA and Form MA for the experimental group was 0.67, which was significant at the 0.002 level. The Kuder-Richardson 20 formula, measuring internal consistency or homogeneity of the test material for the control group was 0.93, for the experimental group 0.80.

To determine the possible relationship between English reading comprehension ability, as measured with Jewell's test, and French reading comprehension ability, as measured with the MLA reading test, the scores of these tests were correlated. The correlation coefficients of the MLA French reading test Form LA or Form MA with Jewell's English reading comprehension test for the control and the experimental group are summarized in Table 1.

A low negative correlation coefficient of -0.05 was found between the MLA French reading test scores Form LA (pretest) and Jewell's English reading test for the control group. Similarly, the control group scored a correlation of -0.26 between the French reading test, Form MA (posttest), and Jewell's English test. A negative sign in the correlation coefficient between the English and French reading test indicated that students with a high score on the English reading test might be expected to have a low score on the French reading test or vice versa. However, since a low correlation coefficient close to zero reflects little relationship, an ability to predict scores is not

Table 1

Means, Range of Test Scores, Standard Deviations and Correlation Coefficients for the Jewell English Reading Test, the French MLA Reading Test Form LA (Pretest) and Form MA (Posttest) for the French 205 Students

TESTS	JEWELL	MLA LA	MLA MA
Control Group			
Means	28.32	31.05	15.63
(rescaled)			(35.63)
Range	11-39	14-49	01-43
SD	7.76	7.54	9.02
Correlations			
JEWELL	1.00		
MLA LA	-0.05	1.00	
MLA MA	-0.26	0.88***	1.00
Experimental Group			
Means	30.11	35.21	18.21
(rescaled)			(38.21)
Range	17-40	22-48	10-34
SD	6.01	7.27	6.79
Correlations			
JEWELL	1.00		
MLA LA	0.34	1.00	
MLA MA	-0.07	0.67**	1.00

** $p < 0.01$
*** $p < 0.001$

Total number of students = 38

suggested.

The experimental group had a low positive correlation coefficient of 0.34 between the French reading test, Form LA and Jewell's English test. A positive correlation coefficient means that the score on the French test tends to go together with the score on the English test. A low correlation coefficient does not allow reasonable predictability of a score on the English test when the score on the French test is known. The correlation coefficient for the MLA French reading test, Form MA, and Jewell's English reading test was -0.07 for the experimental group. The -0.07 correlation coefficient is so close to zero that statistically no relationship between the scores on the English and French reading tests appears to exist.

The fluctuation of the observed correlation coefficients may be due in part to the small sample. Also, the students differed in the number of years of previous French instruction. For the students in the control group the average years of French instruction was five years with a range from two to thirteen years, the students in the experimental group had an average of four years of French instruction with a range from one to twelve years. By comparing the correlation coefficients of the control group, -0.05 and -0.26, with those of the experimental group, 0.34 and -0.07, there appears to be a steadily rising correlation coefficient between the English and French reading tests, paralleling those of the group mean test performance on the MLA French reading test.

The alternate forms of the MLA French reading test were used to assess the French competency level before and after the experiment. The means, range of test scores, and the standard deviations on the French reading test Form LA (pretest), Form MA (posttest) and Jewell's English reading comprehension test for the control group and the experimental group are also summarized in Table 1.

The control group had a mean of 31.05 on the French reading pretest. The scores ranged from 14 to 49 out of a possible total score of 50. The standard deviation was 7.54, which reflected the variability of individual scores. The advanced French reading test, Form MA was used as the posttest measure. Students in the control group scored a mean of 15.63. The scores ranged from 1 to 43 correct out of 50. The standard deviation was 9.02. Due to the greater difficulty of the posttest, the obtained group mean was smaller than on the pretest. However, if the mean is rescaled by twenty points, the posttest mean 35.63 reflects a gain of 4.58 for the control group over the pretest mean. On the Jewell's English reading comprehension test the control group had a mean of 28.32. The maximum possible score on this test was 44. The observed scores ranged from 11 to 39 correct answers. The standard deviation was 7.76.

The experimental group scored similarly to the control group on the three test measures. On the French reading test Form LA (pretest), the experimental group had a group mean of 35.21. The scores ranged from 22 to 48 and the standard deviation associated with this test was 7.27. Students in the experimental group had a mean of 18.21 on the French reading posttest Form MA, which, rescaled, corresponded to a mean of 38.21. The scores ranged from 10 to 34 correct answers with a standard deviation of 6.79. The rescaled posttest mean of the experimental group reflects a gain of 3.00 over the pretest mean. On the Jewell's English reading comprehension test students in the experimental group scored a mean of 30.11. The correct answers ranged from 17 to 40. The standard deviation was 6.01.

In both groups, students improved their performance from the French reading pretest to the French reading posttest. To determine whether there was any statistically significant difference of group means for the control and experimental group on the three test measures, a one way analysis of variance was calculated. The results are summarized in Table 2. No comparison of means indicated a statistically significant difference. The control group mean of 31.05 on the French reading pretest, Form LA did not differ in statistically significant terms from the experimental group mean of 35.21. Similarly, no

Table 2

Summary of the One Way Analysis of Variance for the French 205 Students on the French MLA Reading Test Form LA

SOURCE	S.S.	D.F.	M.S.	F-RATIO	PROBABILITY
EFFECTS	164.24	1	164.24	2.84	0.10
ERRORS	2084.13	36	57.89		

Summary of the One Way Analysis of Variance for the French 205 Students on the French MLA Reading Test Form MA

SOURCE	S.S.	D.F.	M.S.	F-RATIO	PROBABILITY
EFFECTS	63.18	1	63.18	0.94	0.34
ERRORS	2419.59	36	67.21		

Summary of the One Way Analysis of Variance for the French 205 Students on the Jewell English Reading Test

SOURCE	S.S.	D.F.	M.S.	F-RATIO	PROBABILITY
EFFECTS	30.42	1	30.42	0.60	0.44
ERRORS	1829.92	36	50.83		

statistically significant difference was found for the French reading posttest, Form MA. The experimental group mean of 18.21 was proportionately higher with respect to the French pretest but did not indicate a statistically significant difference from the control group mean of 15.63. Finally, the control and experimental group means for Jewell's English reading comprehension test were not statistically different at the 0.05 level, although the experimental group mean of 30.11 was relatively higher than the control group mean of 28.32.

An analysis of covariance was calculated for the control and experimental group mean on the French MLA reading test, Form MA serving as posttest, with the French MLA reading test Form LA pretest as covariate. The summary of the one way analysis of covariance is presented in Table 3. The mean difference of the control and experimental group was not found to be statistically significant. The covariate, however, was statistically significant at the 0.001 level. The result of the one way analysis of covariance was consistent with the result obtained of the one way analysis of variance. The means of the control and experimental group on the French MLA reading test, Form MA serving as the posttest, did not differ statistically significantly.

Table 3

Summary of the One Way Analysis of Covariance

Comparison of Means on the MLA French Reading Test Form MA with the MLA French Test Form LA as Covariate for the Control and Experimental Group of the French 205 Students

Comparison of the Unadjusted and Adjusted Means and Variances of the Control and Experimental Students

	Unadjusted		Adjusted	
	Mean	Variance	Mean	Variance
control	15.63	85.80	-10.58	21.31
experimental	18.21	48.62	-11.52	28.24

Homogeneity of within group variances $X^2 = 1.39$ $p = 0.24$
Homogeneity of within cell regression coeff test $X^2 = 0.33$ $p = 0.57$

Analysis of Covariance

SOURCE	S.S.	D.F.	M.S.	F-RATIO	p
EFFECTS	7.64	1	7.64	0.29	0.60
COV 1	1485.49	1	1485.49	55.66	0.001***
ERRORS	934.11	35	26.69		

*** $p < 0.001$

Total number of students = 38

Summary

In summary, for the control and experimental group none of the correlation coefficients between the Jewell English reading test and the French MLA reading test Form LA and MA was statistically significant. Thus, the null hypothesis that there is no significant relationship between the scores obtained on the English and French reading tests employed was not rejected. Prediction of test scores is not possible with the observed fluctuating low correlation coefficients. The mean difference between the group means on the French MLA reading test, Form LA serving as pretest and Form MA serving as posttest, for the control and experimental group was not statistically significantly different. Without a statistically significant mean difference between the posttest scores of the control and experimental group, the null hypothesis could not be rejected.

A Study with Grade Ten Students

An experiment testing the efficiency of cognate study with grade ten students started April 13, 1977 with the pretest administration of the French MLA Reading Test Form LA and the Jewell English reading test and concluded with the French MLA reading test Form LB on June 6, 1977. The students in the experimental group received a copy of the English-French cognate unit while the students in the control group did not. A delayed written cognate recognition test part 1 (WCRT 1) was administered June 22, 1977. Teacher one had 36 French 11 students who are in their fourth year of French study. One class of 18 students was randomly assigned to the control group and the other class of 18 students was assigned to the experimental group. Teacher two had 30 French 11 students of which one class of 15 students was randomly assigned to the control group and the other class to the experimental group. One lesson of the English-French cognate unit was assigned per week. The teacher clarified grammatical points in the cognate unit. The questions at the end of each lesson in the cognate unit were corrected in class at the end of each week. A detailed description of the students in the control and experimental groups of teacher number one and two is presented in Appendix C. Permission to perform the study was obtained from the Edmonton Public School Board.

Results and Interpretation

Teacher Number One

With pre- and posttest measures, using alternate forms of the test, it is important to determine the extent to which the measures are correlated. A high correlation between Form LA and Form LB of the French MLA reading test is required in order that the tests be regarded as parallel. The correlation coefficient for the French MLA reading test Form LA and LB was found to be 0.88 ($p < 0.001$) for the control group and 0.90 ($p < 0.001$) for the experimental group. The Kuder-Richardson 20 reliability coefficient, measuring internal consistency of the test items of the French MLA reading test Form LA and LB was 0.93 for both the control and experimental group.

To determine the possible relationship of English reading comprehension ability, as measured with Jewell's test, and the French reading comprehension ability, as measured with the MLA reading test Form LA and LB, the scores of these tests were correlated. The correlation coefficients of the Jewell English reading test, the French MLA reading test Form LA and LB and the written cognate recognition test part 1 (WCRT 1) for the control and experimental group are summarized in Table 4.

For the students in the control group, the correlation coefficients for the Jewell English reading test, the French MLA reading test Form LA and LB and the WCRT 1 did

Table 4

Means, Range of Test Scores, Standard Deviations and Correlation Coefficients for the Jewell Test, the French MLA Reading Test Form LA and LB and the Written Cognate Recognition Test Part 1 for the Control and Experimental Group of Teacher Number One

TESTS	JEWELL	MLA LA	MLA LB	WCRT1
Control Group				
Means	27.61	23.33	25.33	16.78
Range	14-36	14-34	16-35	06-24
SD	6.06	5.93	5.31	4.18
Correlations				
JEWELL	1.00			
MLA LA	0.23	1.00		
MLA LB	0.23	0.88***	1.00	
WCRT 1	0.32	0.49*	0.43	1.00
Experimental Group				
Means	26.67	22.89	25.72	19.11
Range	10-38	10-39	16-38	12-24
SD	8.29	7.60	5.99	2.89
Correlations				
JEWELL	1.00			
MLA LA	0.69**	1.00		
MLA LB	0.68**	0.90***	1.00	
WCRT 1	0.66**	0.69**	0.75***	1.00

* $p < 0.05$
** $p < 0.01$
*** $p < 0.001$

Total number of students = 36

not reach statistical significance. The correlation coefficient between the French MLA Form LA and the WCRT 1 test scores was 0.49. This correlation reached statistical significance at the 0.05 level. The correlation coefficient between the French MLA Form LB and the WCRT 1 was 0.43 ($p = 0.07$).

For the experimental group, the correlation coefficients of the Jewell English reading test with the French MLA Form LA and LB and the WCRT 1 all reached statistical significance at the 0.01 or 0.001 level. The correlation coefficient for the Jewell English reading test with the French MLA Form LA was 0.69 ($p < 0.01$) and 0.68 ($p < 0.01$) for Form LB. The correlation coefficient for the Jewell test and the WCRT 1 was 0.66 ($p < 0.01$). The correlation coefficient for the WCRT 1 with the French MLA Form LA was 0.69 ($p < 0.01$) and 0.75 ($p < 0.001$) for Form LB.

Apart from the idiosyncrasy of the students in the control and experimental group and the relatively small sample size, the observed lack of statistical significance of the correlation coefficients among the tests in the control group and the high correlation coefficients in the experimental group may be a result of different emphasis accorded to reading in previous French instruction (and a possible non-linear learning curve between first and second language acquisition.

The means, range of test scores and the standard deviations on the Jewell English reading test, and on the French MLA reading test Form LA and LB are also presented in Table 4. The students in the control group had a mean of 23.33 on the French MLA, Form LA serving as the pretest. The scores ranged from 14 to 34 out of a possible total of 50. The standard deviation was 5.93. On the French MLA Form LB, serving as the posttest, the control group scored a mean of 25.33. The test scores ranged from 16 to 35 correct answers and the standard deviation was 5.31. On the Jewell English reading test, the control group had a mean of 27.61, the scores ranged from 14 to 36 out of a possible total of 44, and the standard deviation was 6.06.

Students in the experimental group had a mean of 22.89 on the French MLA, Form LA serving as the pretest, the scores ranged from 10 to 39 correct answers out of a total of 50, and the standard deviation, reflecting the variability of scores, was 7.60. On the French MLA, Form LB serving as the posttest, the experimental group scored a mean of 25.72, the scores ranged from 16 to 38. The associated standard deviation for the spread of scores was 5.99. On the Jewell English reading test, students in the experimental group obtained a mean of 26.67, the scores ranged from 10 to 38 and the standard deviation was 8.29.

The mean differences on the French MLA reading test Form LA and LB and the Jewell English reading test of the control and experimental group were tested for statistical significance. The summary of the one way analysis of variances is presented in Table 5. The means on the French MLA Form LA serving as the pretest, were 23.33 for the control group and 22.89 for the experimental group. This mean difference did not reach statistical significance. On the French MLA, Form LB serving as posttest, the control group scored a mean of 25.33 and the experimental group 25.72. The observed mean difference was not statistically significant. On the Jewell English reading test the control group had a slightly higher mean, 27.71, than the experimental group, 26.67; however, the mean difference on the Jewell test was not statistically significant. Thus, the control and the experimental group did not differ statistically on the French MLA reading test Form LA, LB and the Jewell English reading test.

The analysis of covariance performed on the French MLA reading test Form LB, using the MLA, Form LA or both the Jewell test and the French MLA Form LA as covariates, corroborates the findings of the analysis of variance. The summaries of the one way analysis of covariances are presented in Tables 6 and 7. Only the French MLA Form LA serving as covariate reached statistical significance at the 0.001 level.

Within the control group a mean gain of two points on the French MLA reading test, Form LA and LB serving as pre-

Table 5

Summary of the One Way Analysis of Variance on the French MLA Test Form LA Serving as Pretest for the Control and Experimental Students of Teacher Number One

SOURCE	S.S.	D.F.	M.S.	F-RATIO	PROBABILITY
EFFECTS	1.78	1	1.78	0.04	0.85
ERRORS	1671.79	34	49.17		

Summary of the One Way Analysis of Variance on the French MLA Test Form LB Serving as Posttest for the Control and Experimental Students of Teacher Number One

SOURCE	S.S.	D.F.	M.S.	F-RATIO	PROBABILITY
EFFECTS	1.36	1	1.36	0.04	0.84
ERRORS	1153.62	34	33.93		

Summary of the One Way Analysis of Variance on the Jewell English Reading Test for the Control and Experimental Students of Teacher Number One

SOURCE	S.S.	D.F.	M.S.	F-RATIO	PROBABILITY
EFFECTS	8.03	1	8.03	0.14	0.71
ERRORS	1896.29	34	55.77		

Table 6

Summary of the One Way Analysis of Covariance

Comparison of Means on the French MLA Reading Test Form LB with Form LA as Covariate for the Control and Experimental Group of Teacher Number One

Comparison of the Unadjusted and Adjusted Means and Variances of the Control and Experimental Students

	Unadjusted		Adjusted	
	Mean	Variance	Mean	Variance
control	25.33	29.88	8.08	7.22
experimental	25.72	37.98	8.79	7.57

Homogeneity of within group variances $X^2 = 0.24$ $p = 0.63$
Homogeneity of within cell regression coeff test $X^2 = 0.01$
$p = 0.93$

Analysis of Covariance

SOURCE	S.S.	D.F.	M.S.	F-RATIO	p
EFFECTS	4.63	1	4.63	0.64	0.43
COV 1	914.47	1	914.47	126.05	0.001***
ERRORS	239.42	35	7.26		

*** $p < 0.001$

Total number of students = 36

Table 7

Summary of the One Way Analysis of Covariance

Comparison of Means on the French MLA Reading Test Form LB with the Jewell English Reading Test and Form LA as Covariates for the Control and Experimental Group of Teacher Number One

Comparison of the Unadjusted and Adjusted Means and Variances of the Control and Experimental Students

	Unadjusted		Adjusted	
	Mean	Variance	Mean	Variance
control	25.33	29.88	7.48	7.66
experimental	25.72	37.98	8.23	7.78

Homogeneity of within group variances $X^2 = 0.24$ $p = 0.63$
Homogeneity of within cell regression coeff test $X^2 = 0.00$ $p = 0.98$

Analysis of Covariance

SOURCE	S.S.	D.F.	M.S.	F-RATIO	p
EFFECTS	4.99	1	4.99	0.67	0.42
Cov 1	2.27	1	2.27	0.31	0.58
COV 2	623.53	1	623.53	84.19	0.001***
ERRORS	237.01	32	7.41		

*** $p < 0.001$

Total number of students = 36

and posttests was observed. This mean difference was tested with a correlated t-test analysis and was found to be statistically significant at the 0.01 level. The experimental group had a mean gain of 2.83 on the French MLA reading test Form LA and LB, which reached statistical significance in a correlated t-test analysis at the 0.003 level. The correlated t-test analysis is summarized in Table 8. Both the control and the experimental groups improved on the French MLA reading test Form LB serving as posttest; however, the experimental group had a higher mean gain than the control group. .

In summary, the relationship between the test scores on the Jewell English reading test and the French MLA reading test Form LA and LB was found not to be statistically significant for the control group, but statistically significant for the experimental group. It was suggested that, apart from the idiosyncrasy of the students in the control and experimental group, and the relatively small sample size, the observed lack of statistical significance of the correlation coefficients among the tests in the control group and the statistically significant correlation coefficient for the students in the experimental group may be a result of different emphasis accorded to reading in previous French instruction. The mean difference on the French MLA reading test Form LA and LB and the Jewell English reading test was tested with the analysis of variance for statistical significance. None of

Table 8

Correlated T-Test Analysis on the French MLA Test Form LA and LB Serving as Pre- and Posttest for the Control Group of Teacher Number One

TESTS	MLA, LA	MLA, LB
Means	23.33	25.33
SD	5.93	5.31
Correlation of MLA, LA & LB	0.88	

t values for variances	d.f.	p	t-test values for means	d.f.	p
0.92	16	0.37	2.92	17	0.01**

Correlated T-Test Analysis on the French MLA Test Form LA and LB Serving as Pre- and Posttest for the Experimental Group of Teacher Number One

TESTS	MLA, LA	MLA, LB
Means	22.89	25.72
SD	7.60	5.99
correlation of MLA, LA & LB	0.90	

t values for variances	d.f.	p	t-test values for means	d.f.	p
2.22	16	0.04*	3.43	17	0.003**

* $p < 0.05$
** $p < 0.01$

the mean differences reached statistical significance, although the experimental group had a higher mean on the French MLA reading posttest than the control group. Both the control and experimental group had a statistically significant mean gain from the MLA reading pretest to the posttest.

A Study with Grade Ten Students

Results and Interpretation

Teacher Number Two

The correlation coefficient between Form LA and Form LB of the French MLA reading test, serving as pre- and posttests, was found to be 0.75 ($p < 0.001$) for the control group and 0.47 ($p < 0.07$) for the experimental group. The Kuder-Richardson 20, measuring internal consistency of the test items, was 0.83 for the control group and 0.62 for the experimental group.

To determine the possible relationship of English reading comprehension ability, as measured with Jewell's test, and French reading comprehension ability, as measured with the MLA reading test Form LA and LB, the scores of these tests were correlated. The correlation coefficients of the Jewell English reading test, the French MLA reading test Form LA and LB and the written cognate recognition test part 1 (WCRT 1) for the control and experimental group are summarized in Table 9.

Table 9

Means, Range of Test Scores, Standard Deviations and Correlation Coefficients for the Jewell Test, the French MLA Reading Test Form LA and LB and the WCRT Part 1 for the Control and Experimental Group of Teacher Number Two

TESTS	JEWELL	MLA LA	MLA LB	WCRT1
Control Group				
Means	25.80	20.87	20.53	18.13
Range	09-36	11-34	15-31	13-23
SD	7.15	5.74	4.24	3.05
Correlations				
JEWELL	1.00			
MLA LA	0.64**	1.00		
MLA LB	0.65**	0.75***	1.00	
WCRT 1	0.58*	0.66**	0.62**	1.00
Experimental Group				
Means	23.67	19.00	21.53	17.27
Range	11-38	08-34	12-30	09-23
SD	7.34	6.69	4.83	4.49
Correlations				
JEWELL	1.00			
MLA LA	0.30	1.00		
MLA LB	0.34	0.47	1.00	
WCRT 1	0.68**	0.71**	0.69**	1.00

* $p < 0.05$
** $p < 0.01$
*** $p < 0.001$

Total number of students = 30

For the students in the control group, the correlation coefficient for the Jewell English reading test with the French MLA reading test Form LA was 0.64 ($p < 0.01$) and with Form LB 0.65 ($p < 0.01$). The correlation coefficient for the Jewell test with the WCRT 1 was 0.58 ($p < 0.05$). The correlation coefficient of the WCRT 1 with the French MLA reading test Form LA was 0.66 ($p < 0.01$) and with Form LB 0.62 ($p < 0.01$). The correlation coefficients between all the tests reached statistical significance.

For the experimental group, the correlation coefficient of the Jewell English reading test with the French MLA reading test Form LA was 0.30, which did not reach statistical significance. Similarly, the correlation coefficient between the Jewell English reading test and the French MLA reading test Form LB was 0.34 which also did not reach statistical significance. The correlation coefficient between the Jewell English reading test and the WCRT 1 was 0.68 and significant at the 0.01 level. The correlation coefficient between the WCRT 1 and the French MLA reading test Form LA was 0.71 ($p < 0.01$) and for Form LB 0.69 ($p < 0.01$).

Statistically significant correlation coefficients for the French MLA reading tests and Jewell's English reading test were found for the control group but not for the experimental group. As was mentioned before, it is possible that apart from the idiosyncrasy of the students in the control and experimental group and the small sample size, the observed fluctuation of the correlation coefficients for the English and French reading tests could be a result of a different emphasis accorded to reading in previous French instruction. For both the control and experimental group, the correlation coefficient for the WCRT 1 and the Jewell English reading test, and the correlation coefficients for the WCRT 1 and the French MLA reading test Form LA and LB were significant. It appears plausible that the WCRT 1 correlates positively with the Jewell English reading test because of commonality due to English-French cognates. Since both the WCRT 1 and the MLA reading test Form LA and LB are French reading tests a positive high correlation coefficient was expected. The lack of statistical significance of the correlation coefficient for the Jewell test and the French MLA Form LA and LB tests could lend support to a curve-like relationship between first and second language acquisition.

The means, range of test scores and the standard deviations on the Jewell English reading test and on the French MLA reading test Form LA and LB are also presented in Table 9. The students in the control group had a mean of 20.87 on the French MLA reading test Form LA. The test scores ranged from 11 to 34 out of a possible total of 50 and the standard deviation was 5.74. On the French MLA reading test Form LB the control group scored a mean of 20.53, the scores ranged from 15 to 31 and the standard deviation was 4.24. On the Jewell English reading test the control group had a mean of 25.80, the scores ranged from 9 to 36 out of a possible total of 44 and the standard deviation was 7.15.

Students in the experimental group had a mean of 19.00 on the French MLA reading test Form LA. There was a wide range of test scores, from 8 to 34, which is reflected in the standard deviation of 6.69. On the French MLA reading test Form LB the test mean was 21.53. The scores ranged from 12 to 30 correct answers out of a total of 50, and the standard deviation was 4.83. On the Jewell English reading test the experimental group scored a mean of 23.67. The test scores ranged from 11 to 38 out of a possible total of 44. The standard deviation was 7.34.

The observed test mean differences on the French MLA reading test Form LA and LB and the Jewell English reading test for the control and experimental group were tested for statistical significance. The summary of the one way analysis of variances on these tests is presented in Table 10. The means on the French MLA reading test, Form LA serving as the pretest, were 20.87 for the control group and 19.00 for the experimental group of teacher number two. This mean difference did not reach statistical significance. On the French MLA reading test, Form LB serving as the posttest, the control group scored a mean of 20.53 and the experimental group 21.53. The observed mean

Table 10

Summary of the One Way Analysis of Variance on the French MLA Test Form LA Serving as Pretest for the Control and Experimental Students of Teacher Number Two

SOURCE	S.S.	D.F.	M.S.	F-RATIO	PROBABILITY
EFFECTS	26.13	1	26.13	0.63	0.43
ERRORS	1165.75	28	41.63		

Summary of the One Way Analysis of Variance on the French MLA Test Form LB Serving as Posttest for the Control and Experimental Students of Teacher Number Two

SOURCE	S.S.	D.F.	M.S.	F-RATIO	PROBABILITY
EFFECTS	7.50	1	7.50	0.34	0.57
ERRORS	619.48	28	22.12		

Summary of the One Way Analysis of Variance on the Jewell English Reading Test for the Control and Experimental Students of Teacher Number Two

SOURCE	S.S.	D.F.	M.S.	F-RATIO	PROBABILITY
EFFECTS	34.13	1	34.13	0.61	0.44
ERRORS	1573.74	28	56.21		

difference was not statistically significant. On the Jewell English reading test the control group had a slightly higher mean 25.80 than the experimental group 23.67, however, the mean difference on the Jewell English reading test was not statistically significant. Thus, the control and experimental group did not differ statistically on the French MLA reading test Form LA and LB and the Jewell English reading test.

The analysis of covariance on the French MLA reading test Form LB, using only Form LA as covariate, or both the French MLA reading test Form LA and the Jewell English reading test as covariates, was not found to be statistically significant. A summary of the one way analysis of covariance is presented in Tables 11 and 12. Only the French MLA reading test Form LA used as covariate reached statistical significance at the 0.001 or 0.01 level.

Within the control group a mean loss of 0.34 on the French MLA reading test, Form LA and LB serving as pre- and posttests, was observed. This mean difference was tested with a correlated t-test analysis (see Table 13) and was found to be not statistically significant. The experimental group had a mean gain of 2.53 on the French MLA reading test Form LA and LB, which failed to reach statistical significance with a probability of 0.14. Only the experimental group improved on the French MLA reading test,

Table 11

Summary of the One Way Analysis of Covariance

Comparison of Means on the French MLA Reading Test Form LB with Form LA as Covariate for the Control and Experimental Group of Teacher Number Two

Comparison of the Unadjusted and Adjusted Means and Variances of the Control and Experimental Students

	Unadjusted		Adjusted	
	Mean	Variance	Mean	Variance
control	20.53	19.27	11.53	9.13
experimental	21.53	24.98	13.33	20.85

Homogeneity of within group variances $X^2 = 0.23$ $p = 0.63$
Homogeneity of within cell regression coeff test $X^2 = 2.07$ $p = 0.15$

Analysis of Covariance

SOURCE	S.S.	D.F.	M.S.	F-RATIO	p
EFFECTS	23.91	1	23.91	1.60	0.22
COV 1	217.10	1	217.10	14.57	0.001***
ERRORS	402.36	27	14.90		

*** $p < 0.001$

Total number of students = 30

Table 12

Summary of the One Way Analysis of Covariance

Comparison of Means on the French MLA Reading Test Form LB with the Jewell English Reading Test and the MLA Form LA as Covariates for the Control and Experimental Group of Teacher Number Two

Comparison of the Unadjusted and Adjusted Means and Variances of the Control and Experimental Students

	Unadjusted		Adjusted	
	Mean	Variance	Mean	Variance
control	20.53	19.27	9.01	8.80
experimental	21.53	24.98	11.01	21.29

Homogeneity of within group variances $X^2 = 0.23$ $p = 0.63$
Homogeneity of within cell regression coeff test $X^2 = 2.18$ $p = 0.14$

Analysis of Covariance

SOURCE	S.S.	D.F.	M.S.	F-RATIO	p
EFFECTS	29.15	1	29.15	2.07	0.16
COV 1	36.09	1	36.09	2.56	0.12
COV 2	108.45	1	108.45	7.69	0.01**
ERRORS	366.48	26	14.10		

** $p < 0.01$

Total number of students = 30

Table 13

Correlated T-Test Analysis on the French MLA Test Form LA and LB Serving as Pre- and Posttest for the Control Group of Teacher Number Two

TESTS	MLA, LA	MLA, LB
Means	20.87	20.53
SD	5.74	4.24
Correlation of MLA, LA & LB	0.75	

t values for variances	d.f.	p	t-test values for means	d.f.	p
1.67	13	0.12	0.33	14	0.75

Correlated T-Test Analysis on the French MLA Test Form LA and LB Serving as Pre- and Posttest for the Experimental Group of Teacher Number Two

TESTS	MLA, LA	MLA, LB
Means	19.00	21.53
SD	6.69	4.83
correlation of MLA, LA & LB	0.47	

t values for variances	d.f.	p	t-test values for means	d.f.	p
1.36	13	0.20	1.55	14	0.14

Form LB serving as posttest. The control group started with a higher pretest mean, 20.87, than the experimental group, 19.00; however, the experimental group had a higher mean, 21.53, than the control group, 20.53, on the posttest.

In summary, the relationship between the test scores on the French MLA reading test Form LA and LB and the Jewell English reading test was found to be statistically significant for the students in the control group but not for the students in the experimental group. It was suggested that apart from the idiosyncrasy of the students in the control and experimental group and the relatively small sample size, the observed results may reflect a different emphasis accorded to reading in previous French instruction. The mean difference on the French MLA reading test, Form LA serving as pretest and Form LB serving as posttest, and the Jewell English reading test for the control and experimental group was tested for statistical significance. None of the mean differences reached statistical significance, although the experimental group had a higher mean on the French MLA reading posttest than the control group. Neither the control nor the experimental group had a statistically significant mean gain from the French MLA reading pretest to the posttest.

Teacher One --- Teacher Two Comparisons

To determine whether any interaction effect existed between the control versus the experimental groups of teacher number one versus teacher number two and high and low pretest scores on the French MLA reading test, a three way analysis of variance was calculated. The cut-off score for low French MLA reading test Form LA performance was 22. The summary of the three way analysis of variance is presented in Table 14. The A main effect of control versus experimental group did not reach statistical significance. The B main effect of teacher number one versus teacher number two was statistically significant at the 0.004 level. This statistically significant difference between teachers number one and two appears to be reflected in the improved test performance of both the control and experimental group on the French MLA reading test, Form LB serving as posttest, for the students of teacher number one. A variety of reasons could account for the differences in the test results between the students of teacher number one and teacher number two. The two teachers probably differed with respect to fluency and competence in French, teacher number one was a native French speaker, whereas teacher number two was not. The two teachers differed in their educational preparations. Teacher number one had a master's degree in French and teacher number two had a bachelor of education degree. Teaching styles and

Table 14

Summary of the Three Way Analysis of Variance for the MLA French Test, Form LB for the Students for Teachers One and Two

SOURCE	S.S.	D.F.	M.S.	F-RATIO	PROBABILITY
A (control vs. experimental group)	11.23	1	11.23	0.62	0.43
B (teacher one vs. teacher two)	162.57	1	162.57	8.98	0.004**
AxB Interaction	2.42	1	2.42	0.13	0.72
C (high vs low French MLA Form LA Test score)	1744.37	1	1744.37	96.32	0.001***
BxC Interaction	4.97	1	4.97	0.27	0.60
AxC Interaction	4.98	1	4.98	0.28	0.60
AxBxC Interaction	0.19	1	0.19	0.01	0.92
Errors	1050.37	58	18.11		

** $p < 0.01$
*** $p < 0.001$

Total number of students = 66

personality variables also may have influenced student-teacher rapport and resulting teacher effectiveness. The C main effect of high versus low French MLA reading test Form LA pretest performance was significant at the 0.001 level. This finding indicates that students with low test scores on the French MLA reading test, Form LA serving as pretest, made a statistically significant gain on the posttest. A low pretest score may have served as a motivating factor for students to study and to try to do better on the posttest. No interaction effects were statistically significant.

A delayed written cognate recognition test part 1 (WCRT 1) was administered two and a half weeks later to the control and experimental groups of teachers number one and two. The summary of the one way analysis of variance is presented in Table 15.

For the control group of teacher number one, the students scored a mean of 16.78; the scores ranged from 6 to 24 out of a possible total of 27, and the standard deviation was 4.18. The students in the experimental group of teacher number one had a mean of 19.11, the scores ranged from 12 to 24 and the standard deviation was 2.89. The mean difference between the control group mean, 16.78, and the experimental group mean, 19.11, was 2.33. The analysis of variance resulted in an F-ratio of 3.58 with a probability of 0.07.

Table 15

Summary of the One Way Analysis of Variance

Comparison of Means on the Written Cognate Recognition
Test (WCRT) Part 1 Serving as a Delayed Posttest
for the Control and Experimental Students of
Teacher Number One

SOURCE	S.S.	D.F.	M.S.	F-RATIO	PROBABILITY
EFFECTS	49.00	1	49.00	3.58	0.07
ERRORS	464.89	34	13.67		

Summary of the One Way Analysis of Variance

Comparison of Means on the Written Cognate Recognition
Test (WCRT) Part 1 Serving as a Delayed Posttest
for the Control and Experimental Students of
Teacher Number Two

SOURCE	S.S.	D.F.	M.S.	F-RATIO	PROBABILITY
EFFECTS	5.63	1	5.63	0.36	0.56
ERRORS	442.67	28	15.81		

For the control group of teacher number two, the students scored a mean of 18.13, the scores ranged from 13 to 23 out of a possible total of 27, and the standard deviation was 3.05. The students in the experimental group of teacher number two had a mean of 17.27, the scores ranged from 9 to 23 and the standard deviation was 4.49. The mean difference between the control group mean, 18.13, and the experimental group mean, 17.27, was 0.86 in favour of the control group. The analysis of variance resulted in an F-ratio of 0.36 with a probability of 0.56.

For the students in the control and experimental groups of teacher number one and teacher number two, no statistically significant delayed posttest effect was found. A higher mean was obtained by the experimental group of teacher number one on the delayed WCRT 1; however, the same effect was not found for the experimental group of teacher number two. The learning as well as the retention rates of the students in the experimental group of teacher number one and teacher number two differed. The observed difference in the delayed posttest results on the WCRT 1 of the experimental groups of teachers number one and two appears to reflect the difference in learning by the students of these teachers. Only for teacher number one had the control and experimental group a statistically significant pretest / posttest mean difference on the French MLA reading test. The experimental group of teacher number one obtained a higher mean on the WCRT 1 than did the control group.

Summary for Teachers One and Two

In summary, the correlation coefficients for the English and French reading tests fluctuated for the control and experimental groups of teachers number one and two. Whether a difference in emphasis accorded to reading during previous French instruction of the students in the control and experimental groups may have caused the observed results is speculative. The observed fluctuations of the correlation coefficients of the English and French reading tests may also be due to the small sample for which the correlation coefficients were calculated. The findings are too inconclusive to postulate a curve-like relationship between first and second language acquisition.

The mean differences on the French MLA reading test, Form LA serving as pretest and Form LB serving as posttest, for the control and experimental groups of teachers number one and two were not found to be statistically significant. The experimental groups of both teachers had a higher mean on the French MLA reading test Form LB than did their respective control groups. The null hypothesis that there is no statistically significant difference between the means for the control and experimental groups on the French MLA reading test, Form LB serving as posttest, was not rejected. The within group pretest-posttest means on the

French MLA reading test Form LA and LB were tested for statistical significance with a correlated t-test analysis. For teacher number one, both the control and the experimental group had a mean gain large enough to reach statistical significance at the 0.01 or 0.003 level. No statistically significant pretest/posttest mean gain on the MLA reading test Form LA and LB was found for both the control and experimental group of teacher number two.

On the delayed posttest, students in the experimental group of teacher number one had a higher mean on the written cognate recognition test (WCRT 1) than the control group. The mean difference failed to reach statistical significance (p = 0.07) at the 0.05 level. The same effect was not found for the students of teacher number two. The students in the control group had a higher mean on the WCRT 1 than the students in the experimental group.

A Study with Grade Ten Students

To determine whether or not students had learned how to utilize English-French cognates, the same experiment, i. e., procedures, experimental curriculum and grade level, was performed with a third teacher except the French MLA reading test Form LA and LB was replaced with a written cognate recognition test, part 1 (WCRT 1) serving as the pretest and part 2 (WCRT 2) as the posttest. A copy of the cognate test is listed in Appendix D of this study. The experiment lasted from April 19, 1977 until June 13, 1977, including the pre- and posttest administration.

The following null hypotheses were tested:

1. There is no significant relationship between the scores obtained on the English reading comprehension test and performance on the written cognate recognition pre- and posttests.
2. There is no statistically significant difference between the means for the control and the experimental group on the written cognate recognition posttest.

Results and Interpretation

Teacher Number Three

With pre- and posttest measures, using alternate forms of the test, it is important to determine the extent to which both measures are correlated. A high correlation coefficient between part 1 and part 2 of the written cognate recognition test (WCRT) is required in order that the tests be regarded as parallel. The correlation between part 1 and part 2 of the written cognate recognition test (WCRT) for the control group was 0.71, which was significant at the 0.004 level. For the experimental group, the correlation between part 1 and part 2 of the WCRT was 0.85, which was significant at the 0.001 level. The Cronbach's alpha reliability coefficient, measuring internal consistency of the test items, was 0.82 for the control group and 0.92 for the experimental group.

To determine the possible relationship between English reading comprehension ability, as measured with Jewell's test, and French reading comprehension ability, as measured with the written cognate recognition test part 1 and part 2, the scores on these tests were correlated. The correlation coefficients for the Jewell English reading test and the WCRT 1 and WCRT 2 for the control and experimental group of teacher number three are summarized in Table 16.

The correlation coefficient between the Jewell English reading test and the WCRT 1 was 0.72 for both the control and the experimental group. This was significant at the 0.01 level. The correlation coefficient between the Jewell English reading test and the WCRT 2 was 0.77 for the control group and 0.86 for the experimental group. Both

Table 16

Means, Range of Test Scores, Standard Deviations and Correlation Coefficients for the Jewell Test, the Written Cognate Recognition Test (WCRT) Part 1 and Part 2 for the Control and Experimental Students of Teacher Number Three

TESTS		Jewell	WCRT 1	WCRT 2
Control Group				
	Means	25.71	16.93	16.57
	Range	13-34	11-21	08-23
	SD	6.05	3.06	3.79
	Correlations			
	Jewell	1.00		
	WCRT 1	0.72**	1.00	
	WCRT 2	0.77***	0.71**	1.00
Experimental Group				
	Mean	21.21	16.00	19.50
	Range	13-29	09-21	12-24
	SD	5.24	3.14	3.22
	Correlations			
	Jewell	1.00		
	WCRT 1	0.72**	1.00	
	WCRT 2	0.86***	0.85***	1.00

** $p < 0.01$
*** $p < 0.001$

Total number of students = 28

correlation coefficients were significant at the 0.001 level. Since reading comprehension requires knowledge of vocabulary, and since English-French cognates represent the commonality between English and French, a high positive correlation coefficient between the English and French reading test was expected. The findings lend support to this expectation.

The means, range of scores and standard deviations for the Jewell English reading test and the WCRT 1 and WCRT 2 are also presented in Table 16. On the WCRT 1 the control group had a mean of 16.93, the scores ranged from 11 to 21 out of a possible total of 27 and the standard deviation was 3.06. The control group had a mean of 16.57 on the WCRT 2, slightly lower than on the WCRT 1, the scores ranged from 8 to 23 correct answers and the standard deviation was 3.79. On the Jewell English reading test the control group mean was 25.71, the scores ranged from 13 to 34 out of a possible total of 44 and the standard deviation was 6.05.

The experimental group had a mean of 16.00 on the WCRT 1, the scores ranged from 9 to 21 and the standard deviation was 3.14. The group mean on the WCRT 2, after the treatment, was 19.50, the scores ranged from 12 to 24 and the standard deviation was 3.22. On the Jewell English reading test the experimental group had a mean of 21.21, the scores ranged from 13 to 29 out of a possible total of 44 and the standard deviation was 5.24.

To determine whether the difference between the group means on the French reading WCRT pre- and posttest and the Jewell English reading test was significant, a one way analysis of variance was calculated. The results are summarized in Table 17. The control group had a higher mean on the WCRT 1, 16.93, than the experimental group, 16.00; however, the group mean difference of 0.93 between the control and experimental group did not reach statistical significance. On the WCRT 2 the control group had a mean of 16.57 and the experimental group 19.50. The mean difference between the control group, 16.57, and the experimental group, 19.50, reached statistical significance at the 0.04 level. The experimental group studying the English-French cognate unit performed better than the control group on a cognate measuring instrument, the written cognate recognition test. Thus, the null hypothesis that there is no statistically significant difference between the means for the control and the experimental group on the written cognate recognition posttest was rejected. The control and experimental group mean difference on the Jewell English reading test of 25.71 and 21.21 was statistically significant at the 0.05 level.

The analysis of covariance, using the WCRT 1 or the Jewell English reading test as covariate, resulted in a higher level of significance for the mean difference on the WCRT 2 between the control and the experimental group. Both

Table 17

Summary of the One Way Analysis of Variance on the WCRT Part 1 Serving as Pretest for the Control and Experimental Students of Teacher Number Three

SOURCE	S.S.	D.F.	M.S.	F-RATIO	PROBABILITY
EFFECTS	6.04	1	6.04	0.58	0.45
ERRORS	268.93	26	10.34		

Summary of the One Way Analysis of Variance on the WCRT Part 2 Serving as Posttest for the Control and Experimental Students of Teacher Number Three

SOURCE	S.S.	D.F.	M.S.	F-RATIO	PROBABILITY
EFFECTS	60.04	1	60.04	4.50	0.04*
ERRORS	346.93	26	13.34		

Summary of the One Way Analysis of Variance on the Jewell Test for the Control and Experimental Students of Teacher Number Three

SOURCE	S.S.	D.F.	M.S.	F-RATIO	PROBABILITY
EFFECTS	141.75	1	141.75	4.11	0.05*
ERRORS	897.22	26	34.51		

* $p < 0.05$

the main effect and the covariate reached statistical significance at the 0.001 level. The summary tables of the analysis of covariance are presented in Tables 18 and 19.

A correlated t-test analysis was carried out to compare the pre- and posttest means on the WCRT 1 and WCRT 2 of the control and experimental group. For the control group, the mean on the WCRT 1 was 16.93, and 16.57 on the WCRT 2, which was not statistically significantly different. For the experimental group, the mean of 16.00 on the WCRT 1 in comparison with 19.50 on the WCRT 2 was statistically significant at the 0.001 level. Comparing the means on the WCRT 1 and WCRT 2 the control group mean decreased slightly by 0.36, whereas the experimental group mean increased from 16.00 to 19.50 by 3.50 points. The statistical table of the correlated t-test analysis may be found in Table 20.

In summary, for the students in the control and experimental group both null hypotheses were rejected. Statistically significant positive correlation coefficients were found for both the control and the experimental group on the Jewell English reading test and the WCRT 1 and 2. Thus, a high test score on the Jewell English reading test tends to correlate with a high score on the WCRT. The mean difference between the control and experimental group on the WCRT, part 1 serving as pretest, was not statistically significantly different for the control and experimental

Table 18

Summary of the One Way Analysis of Covariance

Comparison of Means on the WCRT Part 2 Serving as Posttest for the Control and Experimental Students of Teacher Number Three with the WCRT, Part 1 as Covariate

Comparison of the Unadjusted and Adjusted Means and Variances of the Control and Experimental Students

	Unadjusted		Adjusted	
	Mean	Variance	Mean	Variance
control	16.57	15.49	1.68	8.28
experimental	19.50	11.19	5.42	3.28

Homogeneity of within group variances $X^2 = 0.33$ $p = 0.57$
Homogeneity of within cell regression coeff test $X^2 = 2.38$ $p = 0.12$

Analysis of Covariance

SOURCE	S.S.	D.F.	M.S.	F-RATIO	p
EFFECTS	96.04	1	96.04	17.29	0.001***
COV 1	208.11	1	208.11	37.46	0.001***
ERRORS	138.87	25	5.55		

*** $p < 0.001$

Total number of students = 28

Table 19

Summary of the One Way Analysis of Covariance

Comparison of Means on the WCRT Part 2 Serving as Posttest for the Control and Experimental Students of Teacher Number Three with the Jewell Test as Covariate

Comparison of the Unadjusted and Adjusted Means and Variances of the Control and Experimental Students

	Unadjusted		Adjusted	
	Mean	Variance	Mean	Variance
control	16.57	15.49	3.65	6.85
experimental	19.50	11.19	8.84	3.15

Homogeneity of within group variances $X^2 = 0.33$ $p = 0.57$
Homogeneity of within cell regression coeff test $X^2 = 1.70$
$p = 0.19$

Analysis of Covariance

SOURCE	S.S.	D.F.	M.S.	F-RATIO	p
EFFECTS	162.80	1	162.80	33.78	0.001***
COV 1	226.49	1	226.49	47.00	0.001***
ERRORS	120.48	25	4.82		

*** $p < 0.001$

Total number of students = 28

Table 20

Correlated T-Test Analysis on the Written Cognate Recognition Test (WCRT) Part 1 and Part 2 Serving as Pre- and Posttest for the Control Group of Teacher Number Three

TESTS	Pretest WCRT 1	Posttest WCRT 2
Means	16.93	16.57
SD	3.06	3.79
correlation of WCRT 1 and 2	0.71	

t values for variances	d.f.	p	t-test values for means	d.f.	p
1.07	12	0.31	0.48	13	0.64

Correlated T-Test Analysis on the Written Cognate Recognition Test (WCRT) Part 1 and Part 2 Serving as Pre- and Posttest for the Experimental Group of Teacher Number Three

TESTS	Pretest WCRT 1	Posttest WCRT 2
Means	16.00	19.50
SD	3.14	3.22
correlation of WCRT 1 and 2	0.85	

t values for variances	d.f.	p	t-test values for means	d.f.	p
0.18	12	0.86	7.33	13	0.001*

* $p < 0.001$

group. On the WCRT 2, serving as posttest, the experimental group had a statistically significant higher mean than the control group. The null hypothesis that there is no statistically significant difference between the means for the control and experimental group on the WCRT posttest was rejected. Only the experimental group had a statistically significant mean gain from the WCRT pretest to the posttest.

Summary of the Study with Grade Ten Students

In summary, there was no statistically significant mean difference found for the control and the experimental groups on the French MLA reading test, Form LA and LB serving as pre- and posttests, of teacher number one and teacher number two, although the experimental groups of both teachers scored a higher mean on the French MLA reading test, Form LB serving as posttest, than their respective control group counterparts.

A number of factors could account for the non statistically significant results on the French MLA reading posttest between the control and experimental groups. Students may not have devoted enough time to the lessons in the cognate unit. Fifteen minutes of class time may not have been enough. There are approximately 450 cognates in the cognate unit. This constitutes half of the "900 passive words" specified for level one in the Alberta Curriculum

Guide for French (1974: 21). If level one is equated with one school year, 30 hours of class time could be required for students to learn 450 "passive words". In comparison, if students had spent three quarters of an hour per lesson and fifteen minutes of class time this would have amounted to a total of seven hours.

Grade ten students may have been unaccustomed to the study of grammar since in their audio-visual program _Voix et Images de France_ direct deductive teaching of grammar is not done. Moreover, the level of grammatical knowledge of the students about their native language may have differed. It is possible that these were factors which influenced the non statistically significant results (Rochet, 1977).

The relatively small number of cognates in the French MLA reading test may also have contributed to the non statistically significant results on the MLA French reading posttest between the control and experimental groups. A cognate count of the MLA French reading test Form LA, LB and MA revealed 97 cognates in Form LA, 108 cognates in Form LB and 159 cognates in Form MA. The experimental treatment consisted of studying the recognition of and comprehension with cognates in reading material; the results may be restricted by the test used to assess the efficiency of the cognate approach.

The results of the experiment with teacher number three, where the French MLA reading test was replaced with a written cognate recognition test, revealed a statistically significant mean difference on the WCRT 2 posttest for the control and experimental group although these two groups did not perform statistically significantly differently on the WCRT 1 pretest. The statistically significantly improved performance of students in the experimental group on the WCRT posttest in comparison with the control group indicates that students can learn English-French cognates in a relatively short time. This finding is consistent with an earlier study (Hammer, 1975) where students were taught the phonemic and spelling differences of English-French cognates. Statistically significantly improved test performance was found on the WCRT posttest.

The non-statistically significant mean differences of the group means for students of teachers number one and two on the French MLA reading test, Form LB serving as the posttest, is similar to the findings of Eichler (1972), who investigated the effects of cognate usage on speaking proficiency with the MLA Cooperative Foreign Language Test. Eichler found no statistically significant differences in the analyses; however, the mean differences were observed in favor of the cognate group. Eichler suggested that additional time might eventually have produced significant differences. It appears from the present study, that an alternate explanation may be the limitation of the French MLA standardized test as a cognate measuring instrument rather than the time factor. In the study with teacher number three, where the time factor was held constant, however, the French MLA reading test was replaced with a cognate measuring test (WCRT), a statistically significant group mean difference was found between the control and experimental students.

Students' Evaluation of the English-French Cognate Unit

After the experiment proper was completed, students in the high school experimental groups of teachers number one, two, and three were asked to evaluate the English-French cognate unit. The questionnaire used for this purpose is presented in Appendix E. An open-ended question asked students to explain in what ways they thought that the use of cognates could aid their French study. The answers varied: students felt that cognates enlarged their French vocabulary, or aided their comprehension or spelling ability.

To assess whether the cognate material was appropriate for grade ten students, students were asked to rate the definition of cognates, the review of some characteristics of the parts of speech and the French excerpts. The results are presented in Tables 21, 22 and 23. The definition of cognates was rated as very useful or useful by at least 86 per cent of the students, and the cognate word-ending regularities by 93 per cent of all students responding. The ratings of the very useful or useful category for the examples of deceptive cognates ranged from 73 to 84 per cent. The definition of cognates and the cognate word-ending regularities were rated as being more useful than the examples of deceptive cognates.

The review of the parts of speech was generally rated

Table 21

Questionnaire Results -- Teacher Number One
Evaluation of the Cognate Unit

	very useful (percent)	useful (percent)	not useful (percent)	don't know (percent)
the definition of cognates	2 (11%)	16 (89%)		
cognate word-ending regularities	7 (39%)	10 (56%)		1 (5%)
example of deceptive cognates	4 (22%)	11 (62%)	2 (11%)	1 (5%)
GRAMMAR SECTION:				
nouns	4 (22%)	8 (45%)	4 (22%)	2 (11%)
l'article	2 (11%)	10 (56%)	2 (11%)	4 (22%)
pronouns	4 (22%)	7 (39%)	3 (17%)	4 (22%)
verbs	6 (34%)	7 (39%)	4 (22%)	1 (5%)
auxiliaries	1 (5%)	12 (67%)	2 (11%)	3 (17%)
adjectives	2 (11%)	10 (56%)	4 (22%)	2 (11%)
adverbs	2 (11%)	12 (67%)	3 (17%)	1 (5%)
la préposition	2 (11%)	13 (73%)	2 (11%)	1 (5%)
la conjonction	1 (5%)	14 (78%)	2 (11%)	1 (5%)
types of sentences	3 (17%)	12 (67%)	2 (11%)	1 (5%)
THE FRENCH EXCERPTS:				
la Renaissance italienne	2 (11%)	6 (33%)	5 (28%)	5 (28%)
la pollution	3 (17%)	9 (50%)	5 (28%)	1 (5%)
l'empire Inca	2 (11%)	10 (56%)	4 (22%)	2 (11%)
les dinosaures	2 (11%)	8 (45%)	6 (33%)	2 (11%)
l'avenir de l'Amérique centrale	2 (11%)	8 (45%)	4 (22%)	4 (22%)
ten example words illustrating 16 cognate word-ending regularities	4 (22%)	8 (45%)	5 (28%)	1 (5%)
the questions at the end of each lesson	1 (5%)	13 (73%)	4 (22%)	
the answer key	17 (95%)	1 (5%)		

Total number of students = 18

Table 22

Questionnaire Results -- Teacher Number Two
Evaluation of the Cognate Unit

	very useful (percent)	useful (percent)	not useful (percent)	don't know (percent)
the definition of cognates		13 (87%)	2 (13%)	
cognate word-ending regularities	6 (40%)	8 (53%)	1 (7%)	
example of deceptive cognates	1 (7%)	11 (73%)	3 (20%)	
GRAMMAR SECTION:				
nouns	1 (7%)	9 (60%)	4 (26%)	1 (7%)
l'article	2 (13%)	6 (40%)	4 (26%)	3 (21%)
pronouns	1 (7%)	7 (46%)	6 (40%)	1 (7%)
verbs		11 (73%)	3 (20%)	1 (7%)
auxiliaries	1 (7%)	5 (33%)	8 (53%)	1 (7%)
adjectives		9 (60%)	5 (33%)	1 (7%)
adverbs		7 (46%)	7 (47%)	1 (7%)
la préposition	1 (7%)	7 (46%)	5 (33%)	2 (14%)
la conjonction	1 (7%)	8 (53%)	5 (33%)	1 (7%)
types of sentences	2 (13%)	4 (26%)	7 (47%)	2 (14%)
THE FRENCH EXCERPTS:				
la Renaissance italienne		10 (67%)	4 (26%)	1 (7%)
la pollution		13 (86%)	1 (7%)	1 (7%)
l'empire Inca		10 (67%)	2 (13%)	3 (20%)
Les dinosaures	2 (13%)	11 (73%)	1 (7%)	1 (7%)
l'avenir de l'Amérique centrale		9 (60%)	4 (27%)	2 (13%)
ten example words illustrating 16 cognate word-ending regularities	5 (33%)	5 (33%)	3 (20%)	2 (14%)
the questions at the end of each lesson	4 (26%)	7 (47%)	3 (20%)	1 (7%)
the answer key	8 (53%)	5 (34%)	2 (13%)	

Total number of students = 15

Table 23

Questionnaire Results -- Teacher Number Three
Evaluation of the Cognate Unit

	very useful (percent)	useful (percent)	not useful (percent)	don't know (percent)
the definition of cognates	2 (13%)	11 (73%)	1 (7%)	1 (7%)
cognate word-ending regularities	6 (40%)	8 (53%)		1 (7%)
examples of deceptive cognates	2 (13%)	9 (60%)		4 (27%)
GRAMMAR SECTION:				
nouns	1 (7%)	12 (80%)		2 (13%)
l'article		5 (33%)	2 (13%)	8 (54%)
pronouns		11 (74%)	2 (13%)	2 (13%)
verbs	1 (7%)	11 (73%)	1 (7%)	2 (13%)
auxiliaries	1 (7%)	10 (67%)	2 (13%)	2 (13%)
adjectives	1 (7%)	11 (73%)	2 (13%)	1 (7%)
adverbs		12 (80%)	3 (20%)	
la préposition	2 (13%)	7 (47%)	2 (13%)	4 (27%)
la conjonction	4 (26%)	7 (47%)	1 (7%)	3 (20%)
types of sentences	4 (27%)	3 (20%)	3 (20%)	5 (33%)
THE FRENCH EXCERPTS:				
la Renaissance italienne	3 (20%)	8 (53%)	3 (20%)	1 (7%)
la pollution	3 (20%)	9 (60%)	2 (13%)	1 (7%)
l'empire Inca	4 (27%)	7 (46%)	4 (27%)	
les dinosaures	5 (33%)	7 (47%)	3 (20%)	
l'avenir de l'Amérique centrale	2 (13%)	9 (60%)	3 (20%)	1 (7%)
ten example words illustrating 16 cognate word-ending regularities	5 (33%)	8 (54%)		2 (13%)
the questions at the end of each lesson	3 (20%)	11 (73%)		1 (7%)
the answer key	7 (47%)	6 (40%)		2 (13%)

Total number of students = 15

as very useful or useful by the majority of students (70%). Comments by some students suggested that possibly the remaining 30 per cent found the grammar review either too easy or too difficult. There was a distinct drop in the ratings (70 per cent to about 50 per cent) for the parts of speech which were presented in French. If the comprehension of grammar, which may be already difficult to learn in the first language, is presented in French, unfamiliar lexical items may enhance the difficulty. The parts of speech which were presented in French were rated as very useful or useful by approximately 50 per cent of the grade ten students.

The French excerpts were rated as very useful or useful by approximately 70 to 80 per cent of the students of teachers number two and three. For teacher number one the excerpts were rated as very useful or useful by 60 per cent of the students. Thus, the majority of students found the recognition of cognates in French reading material either very useful or useful. The remaining students rated the French excerpts as "not useful" or "don't know". If the excerpts were perceived as being too difficult by students they are not useful. Some of the students may not have read the excerpts. This could explain the rating "don't know".

The ten example words illustrating sixteen cognate word-ending regularities were rated as very useful or useful by 67 per cent of the students of teacher number one, 66 per cent of the students of teacher number two and 87 per cent of the students of teacher number three. The ratings of the ten example words illustrating the cognate word-ending regularities may reflect different emphasis accorded to the word lists as a vocabulary acquisition device.

The questions at the end of each lesson were rated as very useful or useful by 78 per cent of the students of teacher number one, 73 per cent of the students of teacher number two and 93 per cent of the students of teacher number three. The comments which were made with respect to the questions at the end of each lesson were directed towards the question "to how many English-French cognates does a particular cognate word-ending apply?" Students may have felt a little bit frustrated by this question since it is a memory question and the answer could only be given by looking it up in the first lesson.

The answer key was rated unanimously by the students of teacher number one as very useful or useful. The majority of students, 87 per cent of teacher number two and teacher number three expressed the view that the answer key was very useful or useful. The students who rated the answer key as not being useful suggested that they were tempted to copy the answers and not read the lessons. The answer key should only be in the teacher's edition.

Students were asked to indicate in order of importance the helpfulness of English-French cognates in reading, writing, speaking and listening. Cognates were rated to be of the greatest importance in reading, then in writing, in speaking and lastly in listening. In reading, the comprehension of cognates is least hampered by pronunciation, whereas in listening the comprehension is complicated by intonation, rhythm and stress. A similar relationship exists also between writing and speaking. In speaking and listening the student must observe the French pronunciation of cognates. This is not true in reading or writing.

Students worked independently for approximately three quarters of an hour per lesson. The time indicated by students ranged from five minutes to two hours. This varied between the three teachers, with students of teachers number two and three spending generally less time working independently.

No uniform answers were obtained for the question about the lesson on which the students spent the most time. Generally, students spent more time with lesson one than with two, three and four, and increasingly more time was spent with lessons five, six and seven. The lack of uniformity in the students' replies may indicate the different backgrounds of previous French instruction and knowledge of grammar.

Uniformly, students made the comment that more class

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time than was allotted should be devoted to cognate study. Moreover, students suggested that the unit should be studied over the whole semester. Some students found that the English-French cognate unit contained too much information. To quote a student: "It was a fine unit but should be spread out through the year on class time." Another student wrote:

> This unit would have been more helpful if we had been given a bit of class time to do it in. Because everybody knew that it did not count for our final marks they did not worry too much about getting it done. However, if we had some class time to do it in people would have gotten interested and continued the unit by themselves. I think it was a very good unit, and with a little more co-operation on the part of students and teachers it could be very useful.

The amount of time students would have liked to spend on the study of cognates was also partly an indication of how they felt about studying with cognates. Comments like "it is useful", "it is helpful", "it is a worthwhile and self-improving study" were qualified with requests for more class time.

In general, two thirds of the students of teachers number one, two and three rated the material presented in the English-French cognate unit as very useful or useful. Thus, it may be inferred that the content of the cognate unit for grade ten students, in their fourth year of French study, was appropriate.

In summary, one grade ten student made the following succinct comments:

1. The pre- and posttest really had nothing to do with the cognate unit.

2. There was not enough time to properly learn or really benefit from most of the unit.

3. Cognates should be a regular part of French study.

Since the cognate approach is not a second language teaching method in its own right, cognate study could be used in conjunction with the existing French programs and methodologies.

In the final chapter a summary, the implications of the study and suggestions for further research will be presented.

Chapter VII

SUMMARY, IMPLICATIONS AND SUGGESTIONS FOR FURTHER RESEARCH

Summary

The purpose of this study was threefold. The initial chapters examined the dynamics of first and second language acquisition from a developmental, psychological and semantic perspective. Secondly, the study presented, from the relevant literature, an analytical framework within which the role of cognates in second language acquisition can be assessed. Finally, the development of a cognate instructional unit was discussed and accompanied by an analysis of the results of empirical studies designed to test the efficiency of that approach.

The need for the study was examined in chapter one. Scholars and practitioners have directed their efforts towards research on and application of several mnemonic techniques for learning second language vocabulary. However, empirical studies investigating the use of cognates as a possible efficient vocabulary acquisition device have to date been very limited.

In order to gain the perspective required for developing the analytical framework, the theories of developmental psychologists like Werner and Kaplan (1952, 1963), Piaget (1955, 1969) and Vygotsky (1962), as presented in chapter two, served as reference for an examination of a child's first language acquisition and, in particular, the process of word meaning acquisition. The dynamics of first language acquisition were examined, using the communication model discussed by Werner and Kaplan (1963), which relates the addressor, addressee, symbolic vehicle and referent to the distanciation process.

The third chapter presented an examination of how the distanciation process within first language acquisition and the process of word meaning acquisition relate to second language study. A reciprocal relationship between first and second language study was suggested; that is, with second language learning the distanciation process of word and sentence, sound and meaning, and symbol and referent appears to be facilitated in the first language. A complementary relationship between first and second language study was suggested to exist when knowledge of the first language aids in learning a second and related language. In addition, the meaning components of words, in relation to second language study, was examined. Preliminary investigation of the meaning components of language acquisition suggests that, although words in two or more languages are not identical with respect to the affective, denotative, connotative and conceptual meaning dimensions of words, the denotative and/or conceptual meaning overlap of cognates may warrant a cognate approach in the teaching and learning of related languages. In chapter three a bilingual language model was constructed to illustrate the relationship between the language components, phonetics, syntax and lexicon. The model was used to demonstrate that, by acquiring concepts in the second language for which no counterparts are available in the first language, the semantic aspect of words of a bilingual or multilingual individual may become modified and unlike that of any unilingual person.

The fourth chapter presented a review of literature relating to cognates. Researchers, translators and second language teachers have examined cognates. According to the degree of similarity or difference of semantic overlap, cognates have been described as "good" or "deceptive". Since deceptive cognates constitute a potential source of misunderstanding and confusion, cognates may not have been exploited in second language teaching and learning to the extent that may be warranted. However, it should be noted that a detailed lexical comparison of the English and French languages showed that the ratio of cognates to deceptive cognates is approximately 11,000 to about 950, or eleven to one. The fourth chapter concluded with a discussion of the use of cognates in second language acquisition.

The fifth chapter presented a discussion of the development of an English-French cognate unit. This chapter also addressed the question of readiness for language learning, using cognates as the teaching vehicle. The appropriate age for cognate study was suggested by examining the learner characteristics, Claparède's law and the nature of the English-French cognates (Hammer & Monod, 1976). The objectives of the teaching material included in the English-French cognate unit were examined. The chapter concluded with a presentation of some teaching suggestions for the cognate unit and an indication of the amount of time which could be devoted to the unit.

The sixth chapter presented an experimental design for testing the effectiveness of the cognate unit as a learning vehicle and summarized the results of two separate testings, one study conducted with university students at the University of Alberta and an on site administration in the Edmonton Public School System. The following pages summarize in greater detail the experimental testing and results which were described in chapter six.

A university experiment was conducted with French 205 students. A control and an experimental group was required. The experimental treatment used in the study consisted of the English-French cognate unit. Fifteen minutes per lesson of class time in a week were devoted to the unit. The seven lessons of the cognate unit were covered in a period of six weeks from October 22, to December 1, 1976. The MLA French reading test, Form LA and Form MA, served as the pre- and posttest measures. An English reading test, Jewell's (1969) Reading Comprehension Test for Senior High School Students in Large Urban Areas in Alberta, was selected as a covariate.

To determine the possible relationship between English reading comprehension ability, as measured with Jewell's test, and French reading comprehension ability, as measured with the MLA reading test, the scores of these tests were correlated. For the 38 students in French 205, low negative to moderately high positive correlation coefficents were found. None were statistically significant. Apart from the idiosyncrasy of the students in the control and experimental group and the relatively small sample size, the observed fluctuating correlation coefficients for the Jewell English reading test and the French MLA reading pre- and posttest may be a result of different emphasis accorded to reading in previous French instruction. The observed correlation coefficients of the scores in the university experiment suggested that there was little relationship between the English and French reading tests.

No statistically significant mean differences between the two groups on the French reading pre- and posttest were found nor did the control and experimental group means differ statistically significantly on the Jewell English reading test. Conclusions concerning cognates as an efficient approach to second language vocabulary acquisition must be tentative and must be viewed in terms of two possible limitations. First, the test used, the MLA

French reading test, is not a cognate measuring instrument. Secondly, it is probable that first and second language learning do not correspond to a straight learning curve but rather conform more closely in form to a parabola. This explanation holds that, initially, in second language study, reading is hampered by unfamiliar vocabulary and syntax. However, as the student advances in his second language study, unfamiliar lexical items and syntax decrease and a positive relationship of reading in two languages emerges.

An experiment testing the efficiency of cognate study was also conducted with grade ten students. The experiment started April 13, 1977 with the pretest administration of the French MLA reading test Form LA and the Jewell English reading test and concluded with the French MLA reading test Form LB on June 6, 1977. The students in the experimental groups received a copy of the English-French cognate unit while the students in the control groups did not. A delayed written cognate recognition test part 1 (WCRT 1) was administered June 22, 1977 two weeks following the conclusion of the experiment proper.

Two teachers with two French 11 classes each participated in the study. Teacher number one had 36 French 11 students who are in their fourth year of French study. One intact class of 18 students was randomly assigned to the control group and the other class of 18 students was assigned to the experimental group. Teacher number two had 30 French 11 students, of which one intact class of 15 students was randomly assigned to the control group and the other class to the experimental group. One lesson per week of the English-French cognate unit was assigned. The teacher clarified grammar points in the cognate unit. The questions at the end of each lesson in the cognate unit were corrected in class at the end of each week.

As in the university experiment, the possible relationship of English reading comprehension ability, as measured with Jewell's test, and French reading comprehension ability, as measured with the MLA reading test Form LA and LB, was examined by correlating the scores of these tests. The correlation coefficients for the English and French reading tests fluctuated for the control and experimental groups of both teachers. Whether a difference in emphasis on the reading skills during previous French instruction of the students in the control and experimental groups may have caused the fluctuations is speculative. The fluctuations may also have been due to the small sample for which the correlation coefficients were calculated. The results were too inconclusive to postulate a curve-like relationship between first and second language acquisition.

The between group mean differences on the French MLA reading test, Form LA and LB, and the Jewell English reading test of the control and experimental groups of teachers number one and two were tested for statistical significance. No statistically significant mean differences were found for the control and experimental groups of teachers one and two on the French MLA reading test, Form LA and LB serving as pre- and posttest, although the experimental groups of both teachers scored a higher mean on the French MLA reading posttest than their respective control group counterparts. Since the French MLA reading test is not exclusively a cognate measuring instrument, the results appear to be limited by the test used to assess the efficiency of the cognate approach.

The within group mean difference for the control and experimental groups of teachers number one and two was also tested for statistical significance. The within group mean difference on the French MLA reading pre- and posttest was statistically significant at the 0.01 level for the control group and at the 0.003 level for the experimental group of teacher number one. The control group of teacher number two had no statistically significant pretest/posttest mean difference nor did the mean difference for the experimental group reach statistical significance. Thus, students rates of learning for teachers number one and two differed.

The written cognate recognition test part 1 (WCRT 1) was used as a delayed posttest for the control and experimental groups of teacher number one and teacher number two. The mean difference on the WCRT 1 for the control and experimental group of teacher number one reached a probability level of 0.07 which fell short of being statistically significant at the 0.05 level. On the WCRT 1, which is a cognate measuring instrument, the experimental group had a higher mean than the control group. Thus, after a delayed period of two weeks the cognate studying effect resulted in a mean difference between the control and the experimental group at the 0.07 level of significance. For teacher number two the delayed WCRT 1 posttest mean difference between the control and experimental group did not even approach statistical significance. Since the students of teacher number two had no statistically significant improved pretest/posttest gain it appears likely that students may not have learned enough about cognates during the seven week experiment to apply this cognate knowledge on a delayed written cognate recognition test.

The same experiment, procedures, experimental curriculum and grade level, was performed with a third grade ten teacher. However, the French MLA reading test Form LA and LB was replaced with a written cognate recognition test, part 1 (WCRT 1) serving as the pretest and part 2 (WCRT 2) as the posttest.

For the students in the control and experimental group, statistically significant positive correlation coefficients were found on the Jewell English reading test and the WCRT 1 and 2. Thus, a high test score on the Jewell English reading test tended to correlate with a high score on the WCRT. The mean difference between the scores of the control and experimental group on the WCRT 1, which served as pretest, was not statistically significantly different. However, with the WCRT 2, which served as posttest, the experimental group had a statistically significantly higher mean than the control group. Thus, the experimental group studying the English-French cognate unit performed statistically significantly better than the control group when a cognate measuring instrument was employed.

Implications

The cognate approach to second language teaching is more than a methodology in isolation. Rather, it is an approach that can be used in conjunction with any second language teaching methodology. The commonalities between languages are not necessarily recognized by all students and should be pointed out explicitly when a cognate approach is incorporated. The definition of cognates and their characteristics is factual information which may reinforce the unconscious strategy of some students or may open new avenues to students who have not noticed the similarities.

The theoretical framework for the dynamics of first and second language acquisition proposed that second language teaching should take into consideration the linguistic and cognitive developmental level of the learner, and one principle of cognate study holds that the competency in the first language can furnish a basis for a second and related language. With cognate study, the complementary relationship between first and second language acquisition may be exploited. Utility of a cognate approach will increase with schooling and competence in English. It is particularly at the secondary and university levels that teachers may find optimum utility in the cognate approach.

University students scored a higher mean on the Jewell English reading test and the French MLA reading test Form LA than grade ten students. It appears probable that for university students some of the material included in the cognate unit used in this study was too simple. The definition of cognates and their characteristics presented in the cognate unit may be interesting, factual information. The review of some characteristics of the parts of speech and the excerpts could be omitted for university students who know this material and have no difficulty recognizing cognates.

The implications of two findings of the study not directly related to the hypotheses investigated are worthy of mention. A statistically significant difference between teacher number one and two, as measured by students' scores on the MLA French reading posttest, was found in the study with grade ten students. A possible explanation for the teacher difference was that one teacher was a native French speaker and the other was not. The statistically significantly better test performance of the students of a native French-speaking teacher in comparison with a non-native French-speaking teacher appears to be consistent with Ach's (1971) criteria of word meaning acquisition. According to Ach it is the functional purpose of communication between human beings which leads to meaning acquisition" (p. 303). (Das funktionelle Moment der Verständigung zwischen zwei Menschen ist es das zur autochthonen Bedeutungsverleihung führt.) A native French-speaking teacher may not only speak more French during the class, but the student may also be impelled to gain understanding through that language.

The other finding not directly related to the hypotheses under study was that a statistically significant difference at the 0.001 level was found for high versus low pretest scores. Students who had a high pretest score did not perform statistically significantly better on the posttest. However, for students with a low pretest score it was found that the level of probability is one in a thousand that a student will improve statistically significantly on the posttest. Possible explanations for this finding may be that test results show the student how well he has mastered the subject material. In addition, if the test score is low parents may impose restrictions until better test results are achieved. Also, higher test scores of peers may motivate a student to work harder and to do better. Then too, it is possible that the cognate approach provided a new and more efficient learning avenue for this low scoring group.

The most important implication of the results of the present study was that university and grade ten students using the English-French cognate unit had a higher mean score than the control groups on a standardized French reading test, the MLA Form LB, serving as the posttest, and a statistically significantly higher mean on the WCRT posttest. The lack of a statistically significant mean difference for the control and experimental groups on the French MLA posttest was not considered necessarily to indicate a shortcoming of the English-French cognate unit, but rather the short duration of the experiment may have been responsible. It may be noted that only the students in the experimental group of teacher number one, who spent approximately twice the amount of time on the cognate unit than the students in the experimental group of teacher number two, had a statistically significant pretest/posttest mean difference on the French MLA reading test.

Suggestions For Further Research

On the basis of the present study, the theory presented in the second and third chapters and the experimental testing of the efficiency of the cognate approach, the following points for further investigation are suggested.

1. The theoretical framework for the study of English-French cognates needs to be tested for its correctness and accuracy.

a) It would be interesting to determine through experimentation when the distanciation process within the first language occurs.

b) It would be useful to verify through experimentation whether the distanciation process may be aided and accelerated with second language study.

c) Further empirical examination would be desirable to determine the degree of semantic shift in a bilingual or multilingual individual.

2. The study should be repeated with a larger sample and different teachers to confirm or disconfirm the present findings.

3. The study should be replicated, increasing and standardizing the time exposure for each experimental group.

4. The correlation coefficients between the French MLA reading test and the Jewell English reading test varied for the university and grade ten students participating in this

study. It would be interesting to determine the relationship of students' reading ability in two languages at different stages in the linguistic development of first and second language acquisition.

5. It would be interesting to test empirically which of the elements of the cognate unit contributes most to possibly increased efficiency in the process of second language acquisition: a) the information students receive about cognates, b) the amount of time students practise the recognition of cognates and memorize the cognate word-ending regularities and c) the review of some characteristics of the parts of speech and their arrangements in sentences.

6. It is desirable that, before undertaking further research on the efficiency of the cognate approach, a cognate comprehension measuring instrument, incorporating scales for both written and oral comprehension, should be developed and tested.

7. The following recommended changes of the English-French cognate unit should be undertaken and the product tested.

a) The English-French cognate unit should be divided into a student and a teacher manual. The introduction to the cognate unit should be included for teachers only. Some students may get discouraged if the vocabulary use or word choice is too advanced. Some students may not know the meaning of words like "morphology", "semantics" or "cognition" and may give up before really getting into the study of cognates. The teacher could provide the information in the form of a lecture to the students.

b) The teaching suggestions for the English-French cognate unit should be included in the teacher's manual. A teacher may need to point out to the students how to study cognates. The student may indiscriminately place the same importance and emphasis on all the material included in the cognate unit without distinguishing that only the cognate word-ending regularities need to be memorized if the familiarity of meaning and the correct identification of the part of speech of the cognate poses no problem. The ten example words for each of the cognate word-ending regularities should help in memorizing them and the French excerpts in practising cognate recognition. The teacher would be well-advised to heed the precept of Claparède (1916: 125) "... (vous) n'apprenez rien à l'enfant, ... avant de lui en avoir préalablement fait sentir le besoin ...." The reasons for constructing the English-French cognate unit, the appropriate age levels at which to study a second language with cognates and the objectives of the teaching material in the cognate unit may also be useful in a teacher's manual.

c) The answer key to the questions at the end of each lesson should be included in the teacher's manual only. Although the answer key was rated as very useful or useful by at least 87 per cent of the grade ten students of all three teachers, two students pointed out: "I don't think the answer key should have been included because people are tempted to copy the answers and not read the lessons."

d) In addition to the answer key in the teacher's manual, a separate answer key for each lesson could be provided if the cognate unit is used as a self-instructional unit. In this way, the student can try to answer the questions by himself without being tempted to read the answers. After completion of this task, the teacher could give the student the answer key for the particular lesson for which the student has answered the questions.

8. Computer-assisted instruction lends itself well to drill and interactive excercises. The recognition of cognates in French excerpts could be adapted for computer-assisted instruction.

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Appendix A

A Copy of the
English-French Cognate Unit

Appendix B

Raw Data of the Test Results for University and Grade Ten Students

Raw Data for the French 205 Students in the Control Group

Student	French MLA Form LA	French MLA Form MA	Jewell Test
1	28	15	32
2	30	09	36
3	37	18	32
4	49	43	15
5	34	12	32
6	33	17	24
7	22	09	39
8	26	11	38
9	27	11	28
10	25	15	29
11	29	18	27
12	30	17	26
13	46	33	31
14	31	13	34
15	14	01	11
16	30	13	16
17	32	14	32
18	32	07	36
19	35	21	20

Raw Data for the French 205 Students in the Experimental Group

Student	French MLA Form LA	French MLA Form MA	Jewell Test
1	35	10	32
2	22	17	25
3	26	15	27
4	35	11	36
5	25	18	28
6	35	17	22
7	36	18	35
8	34	16	36
9	42	16	40
10	48	34	32
11	37	17	33
12	42	25	38
13	30	14	26
14	35	14	25
15	42	28	34
16	45	33	17
17	43	19	30
18	34	14	34
19	23	10	22

Raw Data for Students in the Control Group of Teacher Number One

Student	French MLA Form LA	French MLA Form LB	Jewell Test	WCRT Test
1	18	22	28	22
2	31	32	25	21
3	14	20	35	15
4	34	34	35	24
5	20	24	30	06
6	20	20	31	18
7	14	22	29	15
8	19	16	29	15
9	28	28	27	15
10	30	31	31	16
11	22	25	14	13
12	24	24	33	19
13	24	28	23	17
14	30	30	36	22
15	29	35	30	19
16	18	20	16	18
17	18	20	20	11
18	27	25	25	16

Raw Data for Students in the Experimental Group of Teacher Number One

Student	French MLA Form LA	French MLA Form LB	Jewell Test	WCRT Test
1	20	26	28	19
2	30	34	35	22
3	36	38	32	24
4	10	17	10	16
5	19	20	22	17
6	32	33	37	21
7	39	32	38	21
8	16	26	30	19
9	16	20	17	18
10	20	23	13	18
11	18	19	14	12
12	13	16	32	18
13	27	31	33	21
14	19	25	21	17
15	24	26	32	16
16	28	29	27	23
17	23	24	31	22
18	22	24	28	20

Raw Data for Students in the Control Group of Teacher Number Two

Student	French MLA Form LA	French MLA Form LB	Jewell Test	WCRT Test
1	25	20	20	18
2	24	21	36	15
3	22	25	33	20
4	29	24	30	23
5	25	18	33	22
6	18	15	20	13
7	21	26	31	21
8	15	18	26	18
9	19	17	24	19
10	34	31	32	21
11	18	20	25	15
12	16	20	25	18
13	15	16	09	16
14	21	21	28	20
15	11	16	15	13

Raw Data for Students in the Experimental Group of Teacher Number Two

Student	French MLA Form LA	French MLA Form LB	Jewell Test	WCRT Test
1	08	21	17	15
2	23	25	33	23
3	34	30	24	22
4	20	18	22	14
5	18	12	29	17
6	14	22	24	13
7	21	16	22	15
8	10	17	21	09
9	14	21	14	13
10	24	20	27	21
11	18	20	11	14
12	15	20	15	15
13	16	25	38	21
14	20	30	33	24
15	30	26	25	23

Raw Data for Students in the Control Group of Teacher Number Three

Student	WCRT Test Part 1	WCRT Test Part 2	Jewell Test
1	14	14	13
2	18	16	30
3	16	14	23
4	15	19	29
5	20	23	34
6	11	08	17
7	19	15	26
8	17	22	27
9	15	16	29
10	12	12	17
11	20	19	29
12	19	18	27
13	21	17	25
14	20	19	34

Raw Data for Students in the Experimental Group of Teacher Number Three

Student	WCRT Test Part 1	WCRT Test Part 2	Jewell Test
1	16	18	20
2	13	17	18
3	17	22	23
4	09	12	13
5	17	21	24
6	17	20	27
7	13	19	15
8	17	24	29
9	15	17	17
10	16	20	24
11	20	24	28
12	21	23	27
13	13	16	15
14	20	20	17

Appendix C

Description of the University and Grade Ten Student Sample

Description of the French 205 Sample

Number of Students, Age, Years of French Instruction, Previous French Mark, and Other Languages Spoken

	Control Group	Experimental Group
Number of students	19	19
Age in years (range)	20 (17 - 25)	21 (16 - 28)
Years of French Instruction (range)	5 (2 - 13)	4 (1 - 12)
Final French grade (range)	73 (58 - 95)	75 (58 - 98)
Males Females	11 8	4 15
Other languages spoken	German (1) Norwegian (1)	German (3) Chinese (1)

The number in brackets of other languages spoken refers to the number of students to whom this category applies.

Description of the Sample for Teacher Number One

Number of Students, I.Q. Score, Age, Years of French Instruction, Final Grade in Grade 9, Sex and Other Languages Spoken

	Control Group	Experimental Group
Number of students	18	18
Mean I.Q. (range)	122 (102-149)	117 (91-138)
Age in Years (range)	16.7 (15.5-16.11)	16.5 (15.5-16.10)
Years of French Instruction (range)	5.4 years (4 - 6)	3.9 years (2 - 6)
Final French Grade	A = 8 B = 7 C = 2 D = 1	A = 7 B = 7 C = 4
Males	7	11
Females	11	7
Other Languages Spoken		German (3)

Please note that for some students the recorded I.Q. score was up to five years old.

Description of the Sample for Teacher Number Two

Number of Students, I.Q. Score, Age, Years of French Instruction, Final Grade in Grade 9, Sex and Other Languages Spoken

	Control Group	Experimental Group
Number of students	15	15
Mean I.Q. (range)	112 (99-135)	113 (96-126)
Age in Years (range)	16.7 (15.1-16.9)	16.6 (15.5-16.10)
Years of French Instruction (range)	4 years (3 - 6)	4.2 years (3 - 6)
Final French Grade	A = 7 B = 5 C = 3	A = 3 B = 8 C = 4
Males	5	5
Females	10	10
Other Languages Spoken	Norwegian (1)	Chinese (2)

Please note that for some students the recorded I.Q. score was up to five years old.

Description of the Sample for Teacher Number Three

Number of Students, I.Q. Score, Age, Years of French Instruction, Final Grade in Grade 9, Sex and Other Languages Spoken

	Control Group	Experimental Group
Number of students	14	14
Mean I.Q. (range)	112 (97-131)	108 (96-123)
Age in Years (range)	16.4 (16.1-16.11)	16.5 (16.3-16.7)
Years of French Instruction (range)	3.5 years (3 - 5)	3.7 years (3 - 5)
Final French Grade	A = 6 B = 5 C = 2 D = 1	A = 6 B = 5 D = 3
Males	4	6
Females	10	8
Other Languages Spoken	Chinese (1) German (1) French (1) Ukrainian (1)	Ukrainian (4) German (3)

Please note that for some students the recorded I.Q. score was up to five years old.

The socio-economic background for the sample of grade ten students was estimated by noting the occupation(s) for the parent(s) for each student. These ranged from skilled labour to graduate and post-graduate professional positions, with 45 parents having had university training. Roughly speaking, the socio-economic class of the sample may be characterized as middle class.

Appendix D

A Copy of the
Written Cognate Recognition Test
Part 1 and Part 2

Written Cognate Recognition Test

Part 1, the Pretest

Directions : Choose the letter which represents the best response for each of the following sentences and mark it on the answer sheet by filling the space between the dotted lines.

Use an HB pencil to mark your response.

Avoid retracing a mark so often that the mark becomes shiny.

Make sure that all erasures are done neatly and completely.

Avoid making any type of mark along the right-hand edge of the paper where solid black marks already exist.

Only one response per sentence is permitted.

Please do not write in the test booklet.

1. Il est arrivé au ----- juste.
   a) midi
   b) minute
   c) milieu
   d) moment *

2. Un ----- répare les voitures.
   a) ingénieur
   b) mécanicien *
   c) cordonnier
   d) menuisier

3. Les Canadiens devraient être fiers de ----- .
   a) leur domination
   b) leurs gens
   c) leur nationalité *
   d) leurs peuples

4. On achète des robes dans ----- .
   a) un atelier
   b) une boutique *

c) un bureau
d) une usine

5. Je ne peux pas lui écrire. Je n'ai pas de ----- .
a) feuille
b) papier *
c) page
d) lettre

6. Un artiste travaille dans ----- .
a) un magasin
b) un bureau
c) un atelier *
d) une usine

7. ----- autour d'Edmonton est très fertile.
a) La nationalité
b) la frontière
c) le pays
d) la région *

8. Je lui ai envoyé ----- sans timbres.
a) un papier
b) une page
c) une feuille
d) une lettre *

9. Il ne pouvait pas faire son devoir, il en avait oublié ----- .
a) le papier
b) la feuille
c) la lettre
d) l'explication *

10. Cette dame est professeur. Elle est ----- .
a) jeune
b) petite
c) intelligente *
d) belle

11. Il est irritable. Il sera ----- si tu le déranges.
a) tranquille
b) content
c) calme
d) furieux *

12. Pasteur ----- la pasteurisation.
a) a inventé *
b) a forgé
c) a imité
d) a copié

13. Je suis ----- de trouver la solution.
a) faux

b) sûr *
c) dangereux
d) problématique

14. Gallimard est ----- qui publie Hemingway en France.
a) le journaliste
b) l'imitateur
c) le narrateur
d) l'éditeur *

15. Le dimanche nous allons souvent ----- .
a) à l'école
b) au pays
c) à la forêt *
d) á la région

16. On prépare ----- avec de l'huile, du vinaigre, du poivre et du sel.
a) la salade *
b) les crêpes
c) l'omelette
d) le steak

17. Une voiture sans ----- ne marche pas.
a) porte
b) toit
c) peinture
d) moteur *

18. En Alberta il y a énormément ----- .
a) de carrés
b) de cités
c) de bourgs
d) de villages *

19. Je n'ai pas ----- de lui refuser cette aide.
a) la jalousie
b) le courage *
c) la lâcheté
d) le temps

20. Vous avez arrêté l'auto ----- .
a) moralement
b) comparativement
c) brusquement *
d) généralement

21. Catherine a des traits communs avec Pierre. Elle lui ----- beaucoup.
a) déguise
b) explose
c) ressemble *
d) assemble

22. Le parti québecois clarifie sa position envers ----- .
    a) le pessimisme
    b) l'hypnotisme
    c) l'égotisme
    d) le féderalisme *

23. Les machines peuvent ----- notre existence.
    a) simplifier *
    b) nullifier
    c) terrifier
    d) purifier

24. ----- est un antonyme de complexe.
    a) Familier
    b) modeste
    c) innocent
    d) simple *

25. La raison est ----- à l'homme.
    a) présidentielle
    b) essentielle *
    c) torrentielle
    d) tangentielle

26. L'adjectif ----- est un antonyme d'offensif.
    a) agressif
    b) définitif
    c) déductif
    d) défensif *

27. Pour bien connaître ----- d'une région il faut la survoler à moyenne altitude.
    a) la profondeur
    b) la géologie
    c) la topographie *
    d) la structure

The * asterik behind the cognate indicates the answer.

Written Cognate Recognition Test

Part 2, the Posttest

Directions : Choose the letter which represents the best response for each of the following sentences and mark it on the answer sheet by filling the space between the dotted lines.

Use an HB pencil to mark your response.

Avoid retracing a mark so often that the mark becomes shiny.

Make sure that all erasures are done neatly and completely.

Avoid making any type of mark along the right-hand edge of the paper where solid black marks already exist.

Only one response per sentence is permitted.

Please do not write in the test booklet.

1. La fête de Noël tombe au mois de ----- .
   a) décembre *
   b) juillet
   c) février
   d) avril

2. Le garçon s'est cassé la jambe. Il est ----- .
   a) au restaurant
   b) à l'école
   c) à l'hôpital *
   d) à l'église

3. Cette femme ----- parce qu'elle est bien heureuse.
   a) court
   b) pleure
   c) danse *
   d) change

4. Un médecin travaille dans ----- .
   a) une boutique
   b) une usine
   c) un bureau *
   d) un atelier

5. Le garçon a apporté le plat quand ils étaient ----- .
   a) à l'hôpital
   b) à l'école
   c) au restaurant *
   d) à l'église

6. Ne trouves-tu pas que ton amie est vaniteuse ?
   Non, je la trouve ----- .
   a) laide
   b) sincère
   c) jolie
   d) modeste *

7. Tu sais qu'on appelle la sixième ----- de Beethoven
   la "Pastorale" n'est-ce pas?
   a) symphonie *
   b) performance
   c) musique
   d) concert

8. ----- ramasse les billets dans le train.
   a) Le conducteur *
   b) la vendeuse
   c) le machiniste
   d) le porteur

9. Les fenêtres de la chapelle ----- des histoires de
   la Bible.
   a) représentent *
   b) assistent
   c) admirent
   d) attendent

10. A la ferme on conduit ----- .
    a) un autobus
    b) un métro
    c) un bateau
    d) un tracteur *

11. ----- est un spectacle magnifique. On y voit des
    clowns, des acrobates et des musiciens.
    a) L'amphithéâtre
    b) le cercle
    c) l'arène
    d) le cirque *

12. Pour faire ----- il faut aller dans la forêt.
    a) un dîner
    b) un abri
    c) un banquet
    d) un pique-nique *

13. ----- je ne regardais pas où je marchais. Et alors,
    je suis tombé.

a) Religieusement
b) naturellement *
c) extrêmement
d) admirablement

14. L'autobus n'arrive pas. Cette heure d'attente m'a paru ----- .
a) une éternité *
b) un temps
c) une antiquité
d) une ironie

15. Que pensez-vous de la peinture ----- ?
a) abstruse
b) courtoise
c) théorique
d) abstraite *

16. Il parle avec trop ----- .
a) de régence
b) de tangence
c) de transparence
d) d'insistance *

17. Elles ont travaillé et gagné le prix. Elles le ----- .
a) méritent *
b) accusent
c) confirment
d) augmentent

18. ----- court les 100 mètres en un temps record.
a) L'homme
b) le champignon
c) le sportsman
d) le champion *

19. ----- multiplie les revenus d'un pays.
a) Le tourisme *
b) le matérialisme
c) le journalisme
d) l' humanisme

20. ----- a étudié la science des remèdes et des médicaments.
a) Le magicien
b) le technicien
c) le métaphysicien
d) le pharmacien *

21. Les habitudes, les moeurs, et les coutumes ont nécessairement ----- les types humains.
a) modifié *
b) laissé
c) déposé

d) condensé

22. Je le connais, mais je n'arrive pas à ----- .
    a) l'identifier *
    b) le certifier
    c) l'intensifier
    d) l'unifier

23. Le genre comique et le genre tragique sont les limites réelles de la composition ----- .
    a) légère
    b) idyllique
    c) lyrique
    d) dramatique *

24. En France, les admirations sont toujours ----- .
    a) décoratives
    b) érosives
    c) excessives *
    d) duplicatives

25. Les citoyens ----- sont ceux qui s'intéressent aux affaires publiques.
    a) ambitieux
    b) malhonnêtes
    c) consciencieux *
    d) indélicats

26. L'énergie ----- est celle d'un corps capable de fournir un travail.
    a) différentielle
    b) potentielle *
    c) insubstantielle
    d) essentielle

27. Le dictateur s'est mis à rire quand on lui a ----- la mort du chef de l'opposition.
    a) déterminé
    b) qualifié
    c) annoncé *
    d) exposé

Appendix E

A Copy of the Student Questionnaire to Evaluate the English-French Cognate Unit

Questionnaire

To Evaluate the English-French Cognate Unit

I would like to know your reaction to, and obtain your evaluation of, the teaching material on cognates. Your honest answers could help me to assess if the use of cognates is worth teaching or not, and to improve, alter or delete what you do not like.

1. In what ways do you think that the use of cognates could aid your French study?

2. Please rate the following information and exercises according to its usefulness. Use the numbers as follows:

1 - the information or exercise was: very useful
2 - the information or exercise was: useful
3 - the information or exercise was: not useful
4 - don't know

The definiton of cognates ---
The cognate word-ending regularities
like "-té" corresponds to "-ty" ---
Examples of deceptive cognates ---

The grammar section:

nouns ---
l'article défini et indéfini ---

pronouns ---

verbs ---

auxiliaries ---

adjectives ---

adverbs ---

la préposition ---

la conjonction ---

types of sentences (statement, question) ---

The French excerpts:

la Renaissance italienne ---

la pollution ---

l'empire Inca ---

les dinosaures ---

l'avenir de l'Amérique centrale ---

The ten example words followed by a short definition in French for sixteen word-ending regularities ---

The questions at the end of each lesson ---

The answer key ---

3. Please indicate the order of importance English-French cognates could be of help to you in: (Use number one (1) for greatest/highest importance, number two (2) for second highest, etc.)

Speaking ---

Reading ---

Listening ---

Writing ---

4. Approximately how long did it take you to work through:

Lesson 1 --- hour(s)
Lesson 2 --- hour(s)
Lesson 3 --- hour(s)
Lesson 4 --- hour(s)
Lesson 5 --- hour(s)
Lesson 6 --- hour(s)
Lesson 7 --- hour(s)

5. With what lesson or exercise did you spend the most time: Please specify.

6. How much time would you have liked to spend on the study of cognates? Please specify the time in hours.

7. How do you feel about studying French with cognates?

8. Please feel free to make any further comments, critiques, or suggestions.

English-French Cognate Unit

by

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"The shock of difference is as strong as that of familiarity"

(Steiner, 1975: 379).

In the pursuit of the 'Canadian Dream'

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Introduction

From time immemorial, individuals engaged in the learning of a second language have been faced with the problem of acquiring new words to express concepts which may overlap to a degree with those they can express in their mother tongue. Acquiring and increasing vocabulary is one of the cornerstones necessary for the development of communication skills in a second language.

Learning a second language is a time-consuming affair. In order to speed up the process, the second language learner could capitalize on all he knows in his first language to help him internalize elements of the second one, especially if the languages are related. The English and French languages share an extensive vocabulary which is a result of the following: 1) the use of Latin and Greek loan-words in the form of radicals, prefixes, and suffixes in both languages, 2) the Norman conquest, which enriched the English language with many French words, 3) the terminology of modern technology common to both English and French and 4) lexical borrowings from other languages.

The Cognate Word List

A detailed lexical comparison of English and French resulted in a word list of 10,993 English-French cognates with the same or similar spelling and meaning. A systematic review of the Larousse Dictionnaire Moderne Français - Anglais (1960) provided this list of words with the same or similar spelling and meaning in both languages. Deceptive cognates, or words which have the same spelling in the two languages but different meanings, were noted in the Larousse dictionary, but in order to ensure that no deceptive cognate was contained in the list, Les Faux Amis (1946) by Koessler and Derocquigny and Seward's Dictionary of French Deceptive Cognates (1947) were compared with the word list. All cognates in the Larousse Dictionary have been listed. Definitions were not included. For partial cognates, or words whose meanings overlap in some usages but not in others, the domain in which the English and French words coincide, e.g., in music, philosophy, medicine, art, etc. were indicated. No phonetic transcriptions were included.

The Possible Utility of English-French Cognates

Second language vocabulary acquisition may tax the memory of any learner. The ease with which a learner masters his second language may depend on his ability to see resemblances, and thus to readily classify the new and strange materials. However, the use of English-French cognates does not appear to be productively exploited in teaching and learning either English or French as a second language.

Hammer (1975) and Limper (1932) found that the possible utility of English-French cognates appeared to depend on a relatively large English vocabulary knowledge of the individual. It is difficult to assess whether all of the approximately 11,000 cognates on the author's list are familiar to an English speaking person, whether he is a secondary student or an educated adult. The possible utility of cognates as a vocabulary acquisition device may be large or small, since all the 10,993 English-French cognates may or may not be part of the learner's vocabulary. Yet words like "train" and "table" may be useful already to an English speaking elementary pupil learning French.

Some arguments in favor of using cognates as a vocabulary acquisition device are:

1. Since the ratio of cognates to deceptive cognates is approximately 11,000 to about 950, the memory effort required by students to learn vocabularies could be greatly reduced by cognate study.

2. The acquisition of meaning is a gradual process consisting of progressive discrimination. This is true in the learning of the native language as well as a second one; it is never complete nor is it a simple process. Second language students of French may benefit from

cognates and partial cognates because not all word meanings are learned at the same time.

3. Word-ending regularities like the equivalence of the French "-té" and the English "-ty" in words such as "beauté" - beauty can be easily learned by students if the spelling and meaning of the English and French cognates are otherwise the same. Chamberlin observed that:

> The amount of time required at first to master the principles (or rules about the corresponding English-French cognate endings) grows relatively less, in proportion as the number of cases increases to which it applies, until the time may be practically disregarded (Chamberlin, 1905 :316).

4. The acquisition of meaning may be enhanced by knowledge of key prefixes, roots and suffixes. The Greek and Latin suffixes which Jean Dubois (1962) listed in his *Etude sur la Dérivation Suffixale en Français moderne et contemporain* are generally as applicable to English words as to French words. For example:

Prefix	Meaning	Example words	
		English	French
a-, an-	(not, without)	apathy	apathie
		atheism	athéisme
bene-	(well, good)	benefit	bénefice
		benediction	bénediction

Root	Meaning	Example words	
		English	French
magna	(great)	magnitude	magnitude
		magnificent	magnifique

med	(middle)	medium	médium
		mediocre	médiocre

Suffix	Meaning	Example words	
		English	French
-or, -er	(one who)	actor	acteur
		employer	employeur
-ism	(belief in)	communism	communisme
		journalism	Journalisme

5. Cognate learning can aid vocabulary acquisition by enriching the vocabulary in the second language and by complementing the vocabulary of the mother tongue.

6. By using cognates, reading in the second language may be facilitated because the time spent looking up unknown words in the dictionary could be reduced. Thus, the student is brought into contact with the target language on a broader scale. This in turn may help him to develop a *Sprachgefühl* or sensitivity to lexical appropriateness as well as to structural forms. Thus, with cognates, the recognition and acquisition of a reading vocabulary may be facilitated.

The English-French Cognate Unit

The core of the English-French Cognate Unit centers on the similarity of the English and French languages with respect to vocabulary (cognates) and syntax. Knowledge of word formation is applicable to both languages. Included in the cognate unit is a list of the meanings of the suffixes contained in the cognate word-ending regularities and their morphological characteristics. In both English and French the suffix may change the part of speech of words, for example :

French	English
nationalisme (noun)	nationalism
nationaliser (verb)	to nationalize
national (adjective)	national
nationalement (adverb)	nationally
rigidité (noun)	rigidity
rigidifier (verb)	to rigidify, to make rigid
rigide (adjective)	rigid
rigidement (adverb)	rigidly

Using context clues to guess the meanings of unfamiliar words is helpful in both English and French reading.

The similarity of English and French syntax with respect to types of sentence construction and word order is emphasized. The four basic types of sentence constructions, namely, statement, question, command and exclamation, are reviewed. Although there is a pecularity of pronominal order in French, Greenberg (1966), who investigated some universals of grammar with particular reference to the order of meaningful elements, notes that "in declarative sentences with nominal subject and object, the dominant order is almost always one in which the subject precedes the object" (Greenberg, 1966: 110).

The English-French cognate unit consists of seven lessons. The first lesson presents the essence of English-

French cognates and their characteristics. Lessons two to six consist of the following: 1) the grammar section for learning some characteristics of the parts of speech, 2) the English-French cognate word-ending regularities for memorizing them, and 3) the French excerpts for practising recognition of cognates. Lesson seven shows how the parts of speech previously studied are arranged in sentences.

The learner should note that the information provided is applicable with reference to English-French cognates as they are defined in the English-French Cognate Unit. However, cognates represent only a fraction of French second language study. The differences between the two languages must also be studied. The learner must be prepared to modify his knowledge about the second language in accordance with advanced language study. For example, the "-eur" suffix may indicate a noun or adjective in French. When the "-eur" ending is used as an adjective in French it is no longer a cognate with English.

Lesson One

The objective of the lesson is to acquaint you with a comparison of the English and French vocabulary systems, the definition of cognates and the most frequent deceptive cognates contained in a French frequency word count, _Le Français Fondamental, Premier Degré_ .

Comparison of the English and French Vocabulary Systems

The comparison of the two vocabulary systems of the English and French languages is based upon the similarities and differences between them. We will find seven word classifications (Lado, 1960).

1. There are words that are similar or identical in spelling and in meaning. For example, the word "piano" refers to the same musical instrument in both English and French. If these words share their etymological origin they are called cognates.

2. There are words which have the same spelling in the two languages but different meanings. For example the English word "coin" refers to money but the French word "coin" means corner. If these words share an etymological origin but have acquired different meanings in the two languages, they are called

deceptive cognates.

3. Then there are words which are similar in meaning but are spelled differently in the two languages. For example "tree" in English is "arbre" in French.

4. There are words which have no equivalent meaning in the other language. For example "le concierge" in French has no exact counterpart in English.

5. There are words which are different in their type of construction. For example, for a French person studying English as a second language the two-word verbs may be difficult to learn. e.g., to call up = to telephone, to call on = to visit.

6. A special difficulty group is represented by the words that are harmless in connotation in the native language but offensive or taboo in the second language or vice versa. For example, the French word "tabernacle" is not used as a swear word in English.

7. Finally some words are used and understood only within a particular geographical region. Dialects fall into this category.

Definition of Cognates and Their Characteristics

The word "cognate" is derived from the Latin __cognatus__, meaning "born together, kindred, related, from the same stock". Applied to words, it refers to those having the same root or some derivation in common or to words that are similar or identical in spelling and meaning in two or more languages regardless of origin. The term cognate is also loosely applied to words borrowed in two or more languages from the same source. For example, English and French both adopted the word "malaria" from the Italian language. If two words have the same origin but are now so different that speakers of the two languages do not identify them as similar, they are not considered cognates. The term *similar* is restricted here to include items that have the "same" meaning in both languages in ordinary use. *Similar in form* refers either to a change of one letter in the spelling of the French and English word, *for* example, oncle - uncle, avantage - advantage, or to the following regularities, amongst others, *if the spelling of the English and French words are otherwise the same:*

Nouns

1. French -té (542)	= English -ty
qualité	quality
2. French -ie (533)	= English -y
industrie	industry
3. French -re (339)	= English -er (or) -re
mètre	meter
centre	center
agriculture	agriculture
4. French -isme (302)	= English -ism
communisme	communism

5. French -nce (274)	= English -nce (or) -ncy
fréquence	frequence, frequency
6. French -iste (259)	= English -ist
journaliste	journalist
7. French -eur (160)	= English -or (or) -er
acteur	actor
employeur	employer
8. French -cien (10)	= English -cian
électricien	electrician
9. French -ion (1,176)	= English -ion
omission	omission
aviation	aviation
Verbs	
10. French -er (829)	= English: drop -er (or) -r
confesser	to confess
commencer	to commence
11. French -ier (107)	= English -y
varier	to vary
Adjectives	
12. French -ique (605)	= English -ic
classique	classic
13. French -if, ive (196)	= English -ive
collectif	collective
14. French -eux, euse (161)	= English -ous
curieux	curious
15. French -é (104)	= English -ed
sacré	sacred

16. French -tiel, elle (16) = English -tial
confidentiel confidential

The numbers in parenthesis indicate the frequency of the cognates within each word-ending similarity class. For example, there are 542 cognates which have the French "-té" and English "-ty" ending. The cognates with these sixteen word-ending regularities account for 5,613 words in the cognate list. These cognate word-ending regularities include at least ten cognates, they are easily recognized, and there are almost no spelling exceptions.

The following cognate regularities may also be useful to you:

Nouns

17. French -tie = English -cy
diplomatie diplomacy

18. French -et = English -ect
effet effect

19. French - (^) = English: replace with "s"
forêt forest

20. French -aire = English -ary
militaire military

21. French -ès = English -ess
progrès progress

22. French -oire = English -ory
histoire history

23. French ai = English ea

aigle	eagle
Verbs	
24. French -iser	= English -ize (or) -ise
organiser	to organize
25. French -er	= English -ate
humilier	to humiliate
26. French -quer	= English -cate
indiquer	to indicate
27. French -ir	= English -ish
finir	to finish
Adjectives	
28. French: initial é	= English: initial s
étrange	strange
Adverbs	
29. French -ment	= English -ly
certainement	certainly

French roots that are spelled differently from the English roots have not been considered in the cognate count, because they may offer difficulty for recognition. For example,

accoutumer = to accustom, to habituate (à, to).

affliger = to afflict, to distress, to grieve.

However, with practice, these cognates will be recognized.

Partial Cognates

Most words have more than one meaning depending on the context and not all meanings necessarily coincide for a given cognate in the two languages. Some word pairs coincide in a few meanings, vary in many, and some coincide in many and vary in few. For example, "cascade" refers to a water-fall in both English and French, but in French it can also have the meanings of "ce qui se produit par saccades, par rebondissements successifs".

Deceptive Cognates

Deceptive cognates are words which are similar or identical in spelling in English and French but have a different meaning in the two languages. The term deceptive cognate does not refer exclusively to the origin of the words because different meanings may be observed in words sharing their origin or having similar spelling. For example, the word "decade" in English and French share the same Latin origin "decas, -adis", however in French the main meaning refers to ten days and in English to ten years. "Pain" meaning "bread" in French is derived from the Latin word "panis" whereas the English word "pain" developed from the Latin "poena" meaning penalty, punishment, pain. There are approximately 950 deceptive cognates for English and French (Seward, 1947).

Examples of Deceptive Cognates

Verbs

attendre - "to wait, to expect", not "to attend" (assister à) nor "to attend to" (s'occuper de).

chanter - "to sing", not "to chant" (psalmodier).

défendre de - "to forbid", not "to defend".

demander - "to request", not "to demand". (exiger)

partir - "to depart, to go off (a gun)", not "to part" (se séparer, se quitter). To part with = se débarrasser de.

regarder - "to look at, to concern", not the usual sense of "to regard" (considérer).

rester - "to remain", not "to rest, repose, rest upon" (reposer, appuyer sur).

retourner - "to return - go back", not "to return - come back" (revenir, rentrer).

sortir - "to come out, go out, to come from, to bring out", not "to sort" (trier).

travailler - "to work, to worry, agitate", not "to travail" (souffrir, peiner) nor "to travel" (voyager).

vendre - "to sell, to be bribed" (il s'est vendu), not "to vend" (colporter).

Nouns

actualité - "an event or topic of the present", generally not English "actuality" (réalité).

l'allée - "the garden path, lane, aisle", not "the alley" (la ruelle).

appareil - "preparations for display, equipment, apparatus (telephone, airplane, stove, denture)", not "apparel" (costume, vêtement).

armeire - "wardrobe, closet", not "an armory" (arsenal, salle d'armes).

barbe - "a beard", not "a barb" (la dent d'une flèche).

bonhomme - in spite of its apparent meaning, it means "old fellow, old cuss, etc. "

boxe - "boxing, pugilism", not "a box" (une boîte).

bureau - "a desk", not "a bureau" (un chiffonnier, une commode).

cabine - "a cabin (on board of ship)", not "a cabin" (on land), (une cabane).

cave - "cellar, wine cellar", not "cave" (caverne).

chance - "luck, possibility, risk", not often "an opportunity" (une occasion).

citron - "a lemon", not "a citron" (un cédrat, une sorte de pastèque).

course - "running, a race, an errand, a trip", not "a course" (un cours, un service, un plat).

dent - "the tooth, the cog, the scallop (of an edge)", not "a dent" (une entaille).

enfant - "a child", not "an infant" (un bébé).

étage - "a story, floor (of a building)", not "a stage" (in a theater: une scène).

fête - "the festival", not "the feast" (le banquet, le festin).

gardien - "a guard, keeper", not (a legal) guardian (of children), (un tuteur).

habit - "a swallow tail, dress coat, attire, clothing (les habits)", not "a habit" (clothing) (habit de cheval, habit de nonne) nor "the habit" - custom (l'habitude).

patron - "the boss, the captain (of a ship)", not "the patron" (except for "le saint patron"), (le client).

place - "a public square, a market, a seat", not English "place" (endroit).

prune -"a plum ", not "a prune" (pruneau).

raisin - "a grape", not "a raisin" (un raisin sec).

station - "a stopping place", not English "railway station" (une gare).

tarte - "a pie (of fruit or custard, generally open-faced)", not "a tart" (une petite pâtisserie aux fruits).

voyage - "trip, travel", not "a voyage" (voyage par mer).

Adjectives

ancien (before a noun) - "former", not "ancient" (this sense if adjective follows).

content - "glad, happy", not English "content"
(satisfait, contenté).

gentil - "nice, Gentile", not English "gentle"
(doux) nor "genteel" (distingué).

It should be noted that not all meanings of a deceptive cognate must necessarily be deceptive. Like partial cognates, one meaning of the English-French cognate may be deceptive in a given context but permissible and correct in another one. For example, the French verb "défendre" may be used in the sense of "to forbid" and in the sense of "to defend" (to protect). Thus, you could use it correctly or incorrectly depending on the context. Some cognates listed as deceptive may never be a deceptive cognate for you, because it depends on the context in which you learn the word. Thus, you may never have confused "le coin" meaning corner in English with "the coin" meaning "la pièce, la monnaie" in French.

Any possible confusion you experience with deceptive cognates may depend on how much French knowledge you have already acquired prior to using or studying with cognates and to what extent you read English into French. It may be possible that for example you could mistake the French "an", meaning "year" in English, for the indefinite article "an" in English. If no other word is recognized and the context of the reading passage is not known this confusion could probably arise. To keep this type of mistake to a minimum, learning French with cognates requires constant alertness and cognitive flexibility to expand, narrow or qualify the meanings of English-French cognates in accordance with all possible morphological, syntactical and contextual clues to decode a French reading passage.

The possible utility you can derive from cognate study depends essentially on your ability to recognize cognates and know their meaning in English. It is assumed that your ability to ignore small differences in the spelling of English and French and to see "abuse" in "abus", "act" in "acte" and "achieve" in "achever" may be enhanced with practice.

How to study with English-French cognates depends on whether or not you can determine in advance which cognates you already know. With the information on English-French cognates as presented in "Definition of Cognates and Their Characteristics" you could do the following:

1) You could read the English-French Cognate Dictionary (1976) and study these cognates like a word list.

2) You could focus your attention on the deceptive cognates and study Seward's dictionary of French Deceptive Cognates (1947).

3) You could learn the cognate word-ending regularities and plunge into reading French. You know that the ratio of cognates to deceptive cognates is approximately eleven to

one.

To facilitate the third suggestion, studying cognates in reading, the following lessons concentrate on vocabulary development techniques and an analysis of sentence constructions.

Questions

1) Should you find any more cognate regularities, please list them.

2) What are the meanings of the following words: linguistic interference, phonetics, morphology, context, cognition, lexicon, semantics, syntax?

3) Write in your own words a short definition of cognates, partial cognates and deceptive cognates. Check your answers with those given at the back of the booklet in Appendix A.

Lesson Two

Written Recognition of Cognates

Cognates should prove useful in facilitating reading once the recognition of them and familiarity with their meaning are taken into consideration.

The objectives for the written recognition of cognates are as follows:

In order to facilitate the recognition of English-French cognates in reading you learn:

1. the word-ending regularities of the English-French cognates (see definition and characteristics of cognates),
2. some characteristics of the French nouns, articles, pronouns, verbs and auxiliaries, adjectives, adverbs, prepositions and conjunctions,
3. how to use context clues in word recognition and comprehension,
4. how to recognize the main elements of the sentence and
5. how to understand sentence structure.

In this lesson you should formulate rules about French noun characteristics: the gender - masculine or feminine, the number - singular or plural, study the first four word ending regularities of nouns: the "-té, -ie, -ance (or) -ence, and -iste", practise the recognition and pronunciation of cognates with the French excerpt "La

Renaissance italienne", and answer the questions at the end of the lesson.

Nouns

1. Nouns are words like "électricité, comédie, tracteur" which usually name a person, place or thing.
2. Nouns are preceded by articles ("le, la, l', les, un, une, de, d', des"), and/or adjectives.
3. Nouns usually form the plural with an "s".

Cognate Word-ending Regularities

1. French -té = English -ty (nouns)

1. admissibilité = fait d'être admissible
2. beauté = caractère de ce qui est beau
3. calamité = grande infortune ou malheur, catastrophe
4. captivité = état de celui qui est captif
5. collectivité = ensemble d'individus groupés naturellement ou pour atteindre un but
6. curiosité = désir de savoir les secrets d'autrui
7. diversité = caractère, état de ce qui est divers
8. électricité = une des formes de l'énergie
9. éternité = durée qui n'a ni commencement ni fin
10. extrémité = la partie extrême, qui termine une chose

All 542 English-French cognate nouns ending in "-té" are

feminine.

2. French -ie = English -y (nouns)

1. catégorie = comment on range des objets
2. comédie = le genre comique
3. économie = art de bien administrer un état
4. épilepsie = maladie nerveuse caractérisée par de brusques attaques convulsives avec perte de connaissance
5. géologie = l'étude de la structure et de l'évolution de l'écorce terrestre
6. géométrie = une branche des mathématiques
7. ironie = manière de se moquer (de qqn. ou de qqch.) en disant le contraire de ce qu'on veut faire entendre
8. philosophie = les recherches sur la connaissance
9. théorie = ensemble d'idées, de concepts abstraits, plus ou moins organisés, appliqué à un domaine particulier
10. pharmacie = science des remèdes et des médicaments

The English-French cognate word-ending "-ie" is most often feminine.

3. French -nce = English -nce (or) -ncy (nouns)

1. fréquence = caractère de ce qui arrive plusieurs fois

2. assurance = confiance en soi-même
3. indécence = caractère de ce qui est indécent
4. inélégance = manque d'élégance
5. pertinence = caractère de ce qui est pertinent
6. science = activité scientifique
7. régence = gouvernement d'une monarchie par un régent
8. transparence = phénomène par lequel les rayons lumineux visibles sont perçus à travers certaines substances
9. distance = longueur minimum qui sépare une chose d'une autre
10. importance = caractère de ce qui est important

All 274 English-French cognate words with the "-nce" ending are feminine words.

4. French -iste = English -ist (nouns)

1. artiste = créateur d'une oeuvre d'art
2. loyaliste = qui a des sentiments de loyalisme
3. humaniste = homme qui a une connaissance approfondie des langues et des littératures grecques, latines
4. journaliste = personne qui collabore à la rédaction d'un journal
5. linguiste = spécialiste en linguistique, science de la langue
6. météorologiste = personne qui s'occupe de l'étude scientifique des phénomènes atmosphériques

7. touriste = personne qui se déplace, voyage pour son plaisir
8. impérialiste = homme qui est favorable à la politique d'expansion nationale
9. spécialiste = personne qui a des connaissances approfondies dans un domaine déterminé et restreint
10. socialiste = personne qui fait profession de socialisme

The "-iste" ending may be feminine or masculine.

La Renaissance italienne

Au XVe siècle, la riche famille des Médicis règne sur la ville de Florence en Italie. Elle se fait la protectrice des peintres et des sculpteurs désireux de retrouver l'harmonie et la magnificence de l' art gréco- romain. La cité rivalise de splendeur, par ses palais, ses églises, ses monuments et ses fêtes, avec Venise, Rome, etc. Tous les "humanistes", ces hommes à la culture universelle, se passionnent alors pour la botanique, la zoologie, l'anatomie, la géologie, l'astrologie, la navigation, et surtout l'étude des textes anciens pour retrouver les premières sources d' inspiration. On appelle cette période la "Renaissance".

(Vidéo-Presse , Vol. IV, Numéro 4, décembre 1974, p. 38.)

Questions

1) State the rules for the four cognate word-ending regularities in this lesson.

2) To how many English-French cognates does the "-té" ending apply ?

3) How could you remember whether the "-iste" cognate word-ending regularity is masculine or feminine?

4) Do you notice something about the French definition given of the cognate words? Yes, or no? Please specify.

5) Write out the words you think are English-French cognates in the excerpt "La Renaissance italienne".

6) How many did you find?

7) Did you recognize "famille, règne, ville, peintres, palais, rivalise, fêtes"? Write down the English equivalent of these words.

8) Try to answer the following French questions on the content of the excerpt:

a) Quel est le siècle de la Renaissance italienne?

b) Qui a protégé les peintres et les sculpteurs?

c) Que signifie l'expression "les humanistes"?

d) Quelle ville rivalise de splendeur avec Venise et Rome?

e) Où les humanistes cherchaient-ils leur inspiration?

f) Comment était la famille des Médicis?

9) What part of speech is "la protectrice"? List all the possible reasons for your choice.

10) What parts of speech may precede a noun?

11) How do you generally form the plural of French nouns?

Check your answers with those given at the back of the booklet in Appendix A.

Lesson Three

The semantic value of the suffixes contained in the word-ending regularities are explained as well as their morphological characteristics. The remaining four word-ending regularities of French-English cognate nouns: the "-eur, -isme, -cien, and -re" are to be studied as in lesson two. Some characteristics of articles and pronouns are reviewed. Recognition of cognates is practised with the excerpt on "La Pollution" taken from Vidéo-Presse. You should review the French noun characteristics in lesson two before doing this lesson.

Suffixes

A suffix is an ending which is added to a word root in order to form a new word. Suffixes are also often used to change a word from one part of speech to another, e.g., calme = adj., calmement = adv.

Les suffixes "-té, -ie, -ence (ou) -ance, et -re" forment de nombreux substantifs. ex. beauté, comédie, fréquence, mètre.

Les suffixes "-isme, -iste" forment des substantifs indiquant: la doctrine ou la profession: socialisme, journalisme; la personne qui la pratique: socialiste, journaliste.

Les suffixes "-eur, -cien" forment de nombreux substantifs (personne qui fait quelque chose (qqch.), ex. docteur,

mécanicien.

Le suffixe "-ique" forme des adjectifs ex. ironique, ou des substantifs, ex. fabrique.

Les suffixes "-eux, euse; -if, ive; -tiel, tielle; -é, ée" forment de nombreux adjectifs. ex. ambitieux, érosif, substantiel, exilé.

Le suffixe "-ment" forme de nombreux adverbes. ex. certairement.

Suffixes généraux issus d'éléments grecs et latins

suffixe	sens	mot exemplaire
-cratie n.f.	pouvoir politique ou social	démocratie.
-graphe n.m.	personne qui enregistre appareil enregistreur	lexicographe, phonographe.
-graphie n.f.	mode d'enregistrement	sténographie.
-logie n.f.	science	bactériologie, psychologie.
-logue m.et f.	spécialiste scientifique	géologue,
-logiste	" "	physiologiste.
-mètre n.m.	qui mesure	baromètre, thermomètre.
-métrie n.f.	mesure	psychométrie.
-phile m.et f.	qui aime, qui a de l'affinité pour	francophile.
-philie n.f.	affinité pour, attachement	anglophilie.

-phone m.et f.	qui parle, qui est enregistré ou enregistre	téléphone, francophone.
-phonie n.f.	transmission de sons	radiophonie.
-scope m. et f.	qui examine	télescope, stéthoscope.

n. f. = nom féminin; n.m. = nom masculin

Cognate Word-ending Regularities

5. French -eur = English -or (or) -er (nouns)

1. constructeur = celui qui construit quelque chose (qqch.)
2. décorateur = personne qui fait des travaux de décoration
3. docteur = personne qui possède le titre de docteur en médecine
4. évaporateur = appareil employé à la compression où se produit l'évaporation
5. exploiteur = personne qui tire un profit abusif d'une situation ou d'une personne
6. gladiateur = homme qui combattait dans les jeux du cirque, à Rome
7. imitateur = personne qui imite les gestes, le comportement d'autrui
8. imposteur = celui qui abuse de la confiance, de la crédulité d'autrui par ses discours mensongers, dans le dessein d'en tirer profit
9. narrateur = personne qui raconte

10. tracteur = véhicule automobile

The "-eur" ending may be feminine or masculine. The feminine ending for the nouns in "-eur" when they refer to a person generally is "-rice", e. g., acteur - actrice.

6. French -isme = English -ism (nouns)

1. existentialisme = doctrine philosophique de l'existence individuelle
2. dogmatisme = caractère des croyances (religieuses, philosophiques) qui s'appuient sur des dogmes
3. égotisme = culte du moi, poursuite trop exclusive de son développement personnel
4. humanisme = formation de l'esprit humain par la culture littéraire ou scientifique
5. hypnotisme = ensemble des phénomènes qui constituent le sommeil artificiel
6. individualisme = attitude d'esprit, état de fait favorisant l'initiative et la réflexion individuelle, le goût de l'indépendance
7. matérialisme = état d'esprit caractérisé par la recherche des jouissances et des biens matériels
8. militarisme = prépondérance de l'armée, de l'élément militaire dans la vie d'une société
9. tourisme = le fait de voyager
10. socialisme = une doctrine de l'organisation sociale

The "-isme" noun ending is always masculine. ?

7. French -cien = English -cian (nouns)

1. électricien = technicien ou ouvrier spécialisé dans le matériel et les installations électriques
2. magicien = personne qui pratique la magie
3. métaphysicien = personne qui s'occupe de réflexions abstraites
4. opticien = celui qui connaît l'optique
5. patricien = personne qui appartenait à la classe supérieure des citoyens romains, aristocrate
6. phonéticien = linguiste spécialisé dans la phonétique
7. politicien = personne qui exerce une action politique dans le gouvernement ou dans l'opposition
8. tacticien = celui qui est spécialisé dans l'emploi des moyens de combat, dans l'exécution des plans stratégiques
9. technicien = personne qui possède, connaît une technique particulière
10. musicien = personne qui connaît l'art de la musique

The "-cien" is a masculine ending.

8. French -re = English -er (nouns)

1. baromètre = instrument qui sert à mesurer la pression atmosphérique

2. hexamètre = qui a six pieds ou six mesures, ex.
   un vers hexamètre
3. kilomètre = unité pratique de distance qui vaut
   mille mètres (km)
4. lettre (f) = écrit que l'on adresse à qqn. pour lui
   communiquer qqch.
5. millimètre = de milli- et mètre; millième partie
   du mètre
6. ministre = homme d'Etat placé à la tête d'un
   département ministériel
7. monstre = être, animal fantastique et terrible (des
   légendes, mythologies)
8. novembre = onzième mois de l'année
9. septembre = neuvième mois de l'année
10. thermomètre = instrument destiné à mesurer des
   températures

The "-re" ending may be feminine or masculine.

Vocabulary Development

We communicate in a variety of ways but mainly we communicate verbally. Words are not things but symbols that stand for things. Words are independent units of speech and writing. What a person speaks, hears, reads, writes, and often what he visualizes and observes -- the whole sensorium of man -- is expressed in words. Thus, your study habits should include analyzing, observing, investigating, and interrelating systematically word parts (roots,

prefixes and suffixes) so as to increase your knowledge of vocabulary.

L'article défini et indéfini

	L'article défini		L'article indéfini	
	Genre		Genre	
	Masculin	Féminin	Masculin	Féminin
singulier	le (l')	la (l')	un	une
pluriel	les	les	des	des

1. On distingue deux espèces d'articles: l'article défini et l'article indéfini. L'article défini est celui qui se met devant un nom pris dans un sens complètement déterminé; il individualise l'être ou l'objet nommé. Par exemple, Donnez-moi la clef (c'est-à-dire la clef que l'on sait). L'article indéfini n'individualise pas l'être ou l'objet nommé. Par exemple, Donnez-moi une pomme (c'est-à-dire n'importe laquelle).

2. L'article est un mot que l'on place devant le nom.

3. Il sert aussi à indiquer le genre et le nombre du nom qu'il précède.

Le Pronom

1. Le pronom est un mot qui souvent représente un nom, une idée ou une proposition exprimés avant ou après lui.

2. Pronoms Personnels

SUJET	OBJET DIRECT	OBJET INDIRECT	POSSESSIF	
je	me	me	le mien	les miens
			la mienne	les miennes
tu	te	te	le tien	les tiens
			la tienne	les tiennes
il, elle	le, la	lui	le sien	les siens
			la sienne	les siennes
nous	nous	nous	le nôtre	les nôtres
			la nôtre	les nôtres
vous	vous	vous	le vôtre	les vôtres
			la vôtre	les vôtres
ils, elles	les	leur	le leur	les leurs
			la leur	les leurs

3. Les pronoms dits "indéfinis" sont "quelqu'un, quelque chose, chacun, quiconque, on, etc."

La Pollution

Comment l' air se pollue!

Le plus grand responsable de la pollution de l' air est certainement le tuyau d'échappement de l' automobile. Et nous sommes loin de faire des efforts pour éliminer cet ennemi. Que de déplacements nous pourrions effectuer sans avoir recours à l' automobile ! Nos moindres déplacements requièrent un véhicule. Afin de diminuer l' effet néfaste de l'oxyde de carbone, le Gouvernement oblige les fabricants d'automobiles à installer des systèmes anti-pollution sur tous les nouveaux véhicules. Informe - toi auprès de plusieurs garagistes pour savoir si les dispositifs anti-pollution ont une influence sur le coût de l'essence et sur le rendement de l'automobile.

Dans les usines, on dépense tous les ans des milliers de dollars pour diminuer la pollution de l' air. Le Gouvernement se montre assez sévère envers les fabricants d' automobiles. Et toi, que feras-tu? Il n'est plus possible de rester indifférent. Tu dois faire ta propre campagne en vue d'une plus grande utilisation de la bicyclette.

(Vidéo-Presse , Vol. III, Numéro 7, mars 1974, p. 53.)

Questions

1) State the rules for the four cognate word-ending regularities in this lesson.

2) What does the "-isme" suffix/mean ?

3) What part of speech is indicated with the "-eur" ending?

4) What does the suffix ending "-eur" mean ?

5) To how many English-French cognates do the "-isme", the "-ie" and "-re" endings apply?

6) There are 28 English-French cognates, not counting the same word twice in the excerpt "La Pollution". Can you find them ? Please list them.

7) Did you guess the meaning of "les fabricants", "le coût", "bicyclette" ? Write down the English meanings for these words.

8) Did you watch out for "rester" and "millier" ? What is the meaning of these words?

9) Try to answer the following French questions on the

content of the excerpt :

a) Qu'est-ce qui est responsable de la pollution de l'air?

b) Qu'est-ce qu'on fait pour diminuer l'effet de l'oxyde de carbone?

c) De quels moyens de transport pourrait-on se servir pour diminuer la pollution de l'air?

d) Est-ce que le système anti-pollution augmente le coût de l'essence?

e) Qui oblige les fabricants d'automobiles à installer des systèmes anti-pollution?

f) Y a-t-il d'autres sources de pollution?

10) What part of speech is "véhicules" in "tous les nouveaux véhicules" ? List all the possible reasons for your choice.

11) What part of speech is "ennemi" ? List the reason(s) for your choice.

12) What part of speech does the personal pronoun replace ?

13) What part of speech indicates the gender of nouns ?

14) Define the indefinite article.

15) What is the English definite article? Give an example. What is the English indefinite article? Give an example.

Lesson Four

Study some of the characteristics of the French verb and auxiliaries. In addition, study the following cognate word-ending regularities: "-er and -ier" in the same way as in lesson two. Practise the recognition of cognates with the excerpt "L'Empire Inca" taken from Vidéo-Presse .

Verbs

1. Verbs are words like "examiner, dénier, citer" that express an action or a state of being.
2. Verbs can show a change in tense by a change in sound and spelling. e.g., You can form the present indicative of the verb "parler", "je parle"; the imperfect "je parlais"; the future "je parlerai"; and the present conditional "je parlerais".
3. Verbs may be preceded by nouns, personal pronouns or direct and indirect objects, (e.g., "je, tu, il, elle, nous, vous, ils, elles, le, la, lui, leur, etc.").
4. Verbs that join two nouns that refer to the same person or thing, or a noun and an adjective that refer to the same person or thing, are called linking verbs or copulas. Common linking verbs (copulas) are "être, sembler, paraître, avoir l'air, devenir, etc."

Auxiliaries

1. The most frequent auxiliary verbs are "avoir" and "être". For example, "j'ai chanté, je suis venu, etc."
2. Auxiliaries always pattern with (appear next to) verbs in statements and can be thought of as "helping" verbs.
3. If there are two or more verbs that can stand together (i.e., be placed side by side without changing the general meaning), the last one is the main verb and the others are auxiliaries. e.g., "Pierre a fait son devoir."
4. Other common auxiliaries are : "aller, devoir, faillir, manquer de, faire, laisser, pouvoir, venir de, vouloir, se mettre à, etc."

At this point you would be well advised to study carefully the conjugation of the verbs listed for your convenience in Appendix B.

Cognate Word-ending Regularities

9. French -er = English drop -er (or) -r (verbs)

1. citer = rapporter un texte pour démontrer ce que l'on avance
2. confirmer = affirmer l'exactitude, l'existence de qqch.
3. dater = mettre la date sur (un écrit, un acte)
4. déplorer = beaucoup regretter
5. déclarer = faire connaître (un sentiment, une volonté,

une vérité) d'une façon expresse

6. destiner = fixer d'avance, assigner, réserver

7. détecter = révéler l'existence de (un corps, un phéromène caché)

8. discipliner = accoutumer à la discipline, donner le sens de l'ordre, du devoir

9. disputer = ne pas vouloir accorder qqch. à qqn.

10. examiner = considérer avec attention

The "-er" verbs in this list form their pnesent tense by adding to the stem (---) the following endings:

je --- e nous --- ons
tu --- es vous --- ez
il --- e ils --- ent

10. French -ier = English -y (verbs)

1. défier = inviter à venir se mesurer comme adversaire

2. dénier = refuser de reconnaître comme vrai (un fait)

3. glorifier = honorer qqn., qqch. en proclamant ses mérites, sa gloire

4. horrifier = remplir d'horreur

5. identifier = reconnaître

6. modifier = changer (une chose) sans en altérer la nature

7. simplifier = rendre plus simple, moins complexe

8. terrifier = frapper de terreur, d'une vive crainte

9. unifier = faire de (plusieurs éléments) une seule et

même chose

10. purifier = rendre pur, débarrasser de la corruption

L'Empire Inca

A l' origine, une humble peuplade indienne installée sur les bords de l' océan Pacifique avait entrepris la conquête des territoires avoisinants. Au lieu, cependant, d'anéantir complètement les vaincus, elle les intégrait à sa propre société et faisait corps avec eux. Un réseau efficace de communications et de voies commerciales était établi aussi rapidement que possible, de façon à accélérer toutes espèces d'échanges. L' usage des terres était concédé à diverses classes sociales.

La succession royale, chez les Incas, ne se faisait pas automatiquement, comme chez les monarques européens de l'époque. Non seulement l'aîné, mais tous les fils de l' empereur possédaient un statut égal, celui de descendant du Dieu-Soleil.

(Vidéo-Presse , Vol. III, Nu. 7, mars 1974, page 8.)

Questions

1) State the rules for the cognate word-ending regularities in this lesson.

2) What part of speech does the "-cien" word-ending signal?

3) To how many English-French cognates do the "-ion", "-nce", "-iste", "-eur" and "-cien" apply?

4) How many English-French cognates are in the excerpt "L'Empire Inca" ? Please list them.

5) Did you recognize the meaning of "peuplade, bords, établi, échanges, espèces, époque" ? Write down the English equivalent for these words.

6) Did you think of "propre" as meaning "own" ?

7) Did you watch out for "corps" ? In what sense is it used in this excerpt?

8) Try to answer the following French questions on the content of the excerpt:

a) Où vivait la peuplade indienne au début?

b) Qu'est-ce que les Incas faisaient des vaincus?

c) A qui appartenait la terre?

d) Pourquoi les voies de communication étaient-elles importantes?

e) Qui avait le droit à la succession du trône?

f) Quelle était la différence entre les lois de succession en Europe et dans l'Empire Inca de la même époque?

9) What part of speech is the word "intégrait" ? List all the possible reasons for your choice.

10) How many simple and compound tenses are there in French? Hint, look in Appendix B

11) What part of speech is "avait" in the first sentence of the excerpt "L'Empire Inca"?

Lesson Five

Review the characteristics of the French adjective. Study the following cognate word-ending regularities: "-ique, -if, -eux, -tiel, -é" in the same way as in lesson two. Practise the recognition of cognates with the excerpt "Les Dinosaures" taken from Vidéo-Presse .

Adjectives

1. Adjectives are words like "dramatique, furieux, défensif" that describe or qualify nouns.

2. Adjectives agree in number and gender with the noun they modify. e.g., "un plan secret -- une décision secrète; les hommes intelligents -- les femmes intelligentes".

3. Descriptive adjectives follow the noun.

4. Adjectives can be put in the comparative and superlative form.

5. Adjectives are words that will fill the blank in the test sentence:

The (any suitable noun) is/are very ---.

Cognate Word-ending Regularities

11. French -ique = English -ic (adj. +/or nouns)

1. arithmétique adj., f = relatif à l'arithmétique

2. clinique adj., f = méthode qui consiste à faire un diagnostic par l'observation
3. comique adj., m = qui appartient à la comédie
4. dramatique adj., f = le genre dramatique; très grave et dangereux
5. économique adj., m = qui réduit les frais
6. électronique adj., f = propre ou relatif à l'électron
7. électrique adj. = propre ou relatif à l'électricité
8. gothique adj., f = l'art du moyen âge en Europe du XIIe au XVIe siècle
9. historique adj., m = qui se rapporte à l'histoire
10. humoristique adj. = qui s'exprime avec humour

The French "-ique" ending can be an adjective or noun ending. The French adjective generally forms the plural by adding an "s". Feminine and masculine adjectives have the same ending "-ique".

12. French -if = English -ive (adjectives)

1. décisif = qui décide, qui conduit à un résultat définitif
2. défensif = qui est fait pour la défense
3. définitif = qui est fixé de manière qu'il n'y ait plus à revenir sur la chose
4. digestif = qui contribue à la digestion
5. diminutif = qui donne, ajoute une idée de petitesse
6. duplicatif = qui double une quantité, un volume

7. érosif = qui produit l'érosion
8. excessif = qui dépasse la mesure souhaitable ou permise
9. expressif = qui a beaucoup d'expression
10. expulsif = qui fait sortir avec violence

Adjectives in "f" change "f" into "ve" to form the feminine form of the adjective. e.g., décisif, décisive

13. French -eux = English -ous (adjectives)

1. dangereux = qui constitue un danger
2. délicieux = qui est extrêmement agréable
3. fabuleux = invraisemblable quoique réel, qui appartient à la fable, au merveilleux
4. furieux = qui est animé, excité par une passion folle, sans frein
5. harmonieux = agréable à l'oreille (en parlant d'un son, d'une combinaison de sons)
6. lumineux = qui émet ou réfléchit la lumière
7. malicieux = qui a de la malice
8. mélodieux = agréable à l'oreille
9. miraculeux = qui est le résultat d'un miracle
10. mystérieux = qui est incompréhensible ou inconnu

Adjective endings in "x" change "x" into "se" to form the feminine. e.g., courageux, courageuse

14. French -tiel = English -tial (adjectives)

1. différentiel = relatif aux différences ou aux variations
2. substantiel = qui a de la substance
3. pénitentiel = relatif à la pénitence
4. pestilentiel = qui tient de la peste
5. préférentiel = qui éteblit une préférence
6. présidentiel = relatif au président, à la présidence
7. providentiel = qui se rapporte à la providence
8. résidentiel = propre à l'habitation, à la résidence
9. substantiel = qui appartient à la substance
10. torrentiel = qui caractérise les torrents

Adjectives in "el" double the final consonant before adding "e" to form the feminine. e.g., résidentiel, résidentielle

15. French -é = English -ed (adjectives)

1. condensé = qui contient beaucoup de matière sous un petit volume
2. déterminé = qui a été précisé, défini
3. discipliné = qui observe la discipline
4. excité = qui a une activité mentale, psychique très vive
5. exilé = qui est en exil
6. exposé = qui est mis en vue
7. incliné = enclin, porté (à)
8. inspiré = animé par l'inspiration, souffle divin ou créateur

9. persuadé = qui est amené à croire, à penser, à vouloir

10. qualifié = qui satisfait aux conditions requises

To form the feminine form of a French past participle you add another "e". e.g., condensé, condensée.

Les Dinosaures

Les lézards terribles du Canada :

Le Canada passe pour un pays jeune et peu peuplé. En fait, la plus grande partie de son immense territoire se classe parmi les plus vieilles terres émergées du monde.

Notre pays compta jadis une population si nombreuse et si terrible que les Canadiens du XXe siècle s'enfuiraient à toutes jambes s'il leur était donné de voir un seul de ses "anciens Canadiens". Mais rassurez-vous: il y a bien peu de chances de croiser, sur l'autoroute Québec-Montréal en 1972, ... un dinosaure ! Cet étrange animal --- dinosaure veut dire, en grec, lézard terrible --- vivait il y a plus de 60 millions d'années, bien avant que l'homme n'apparaisse sur notre planète !

Des dinosaures ont été découverts dans diverses parties du monde, mais c'est en Alberta qu'on a retrouvé le plus grand nombre et la plus grande variété de spécimens de la période du crétacé supérieur : plus de 65 espèces différentes !

(Vidéo-Presse , Vol. I, Numéro 7, avril 1970, pp. 7-8)

Questions

1) State the rules for the cognate word-ending regularities in this lesson.

2) What do the suffixes "-phone", "-phile", "-logie" and "-mètre" mean ?

3) To how many English-French cognates do the "-é", "-eux" and "-tiel" word-ending regularities apply?

4) Write three examples of cognate words where the suffix affects the part of speech of words but not necessarily the essential meaning.

5) How many English-French cognates did you identify in the excerpt? Please list them.

6) Did you recognize or guess the meaning of the following words: "fait, découverts, nombre, nombreuse, rassurez, autoroute, grec, peuplé, espèces"? Write down the English equivalent for these words.

7) What is the meaning of "partie", "anciens" and "chances" in this excerpt?

8) Try to answer the following French questions on the content of the excerpt:

a) Le Canada est-il une nation jeune ou âgée?

b) Où a-t-on trouvé le plus grand nombre et la plus grande variété de dinosaures?

c) Que ferais-tu si tu rencontrais un dinosaure?

d) Que veut dire dinosaure en grec?

e) Combien de spécimens de dinosaures a-t-on identifiés en

Alberta?

f) D'après cet extrait qui sont les "anciens Canadiens"?

9) Identify the parts of speech of the following words : a) peuplé, b) passe, c) territoire and d) émergées. List all the characteristics applicable to these words.

10) With what part of speech does the French adjective agree in number and gender?

11) How could you form the plural of the French adjective?

12) How could you verify whether a word is an adjective?

Lesson Six

Review some characteristics of the adverbs, prepositions and conjunctions. Study the "-ment" cognate word-ending regularity in the same way as in lesson two. Learn how to use context clues, and practise cognate recognition with the excerpt "L'Avenir de l'Amérique Centrale".

Adverbs

1. Adverbs are words like "certainement, simplement, immédiatement" that modify verbs, adjectives or other adverbs.

2. Words that end in -ment (and are neither nouns nor verbs) are adverbs.

3. Adverbs modify verbs, adjectives or other adverbs.
e.g., Nous allons quelquefois au théâtre. (modifie le verbe "aller")
Madame Curie était une femme vraiment géniale. (modifie l'adjectif "géniale")
Nous allons très rarement au cinéma. (modifie l'adverbe "rarement")

4. There are no absolute rules concerning the position of an adverb in a sentence. Generally speaking, the adverb which modifies a verb is placed directly after the verb.
e.g., La rivière coulait lentement sous le pont.

5. Adverbs may frequently be moved to new positions in the sentence without changing the general meaning of the sentence. e.g.,

Maintenant je comprends votre inquiétude.

Je comprends *maintenant* votre inquiétude.

Je comprends votre inquiétude *maintenant* .

La Préposition

1. La préposition est un mot invariable qui sert ordinairement à introduire un élément qu'il relie et subordonne, par tel ou tel rapport, à un autre élément de la phrase: ex.,

habiter *dans* une chaumière (rapport de lieu)

il régnait *depuis* deux ans (rapport de temps)

le jardin *de* mon voisin (rapport d'appartenance)

pêcher *à* la ligne (rapport de moyen)

ingénieux *par* besoin (rapport de cause)

2. Liste des principales prépositions:

à
après
attendu
avant
avec
chez
concernant
contre
dans
de
depuis
derrière
dès
devant
durant
en
entre
envers
excepté
hormis
hors
jusque(s)
malgré
moyennant
nonobstant
outre
par
parmi
passé
pendant
plein
pour
près
proche
sans
sauf
selon
sous
suivant
supposé
sur
touchant
vers
voici
vu

Il faut observer que la présente liste comprend des mots qui n'appartiennent pas exclusivement à la catégorie des prépositions (Grevisse, 1875: 857).

3. Une locution prépositive est une réunion de mots équivalant à une préposition: à cause de, auprès de, d'après, jusqu'à, par delà, en dehors de, etc.

4. L'usage ordinaire demande que la préposition soit suivie immédiatement de son objet, qui forme souvent avec elle une unité sémantique.

La Conjonction

1. La conjonction est un mot invariable qui sert à joindre et à mettre en rapport, soit deux propositions, soit deux mots ou groupes de mots de même fonction dans une proposition. ex.,

Je t'aiderai puisque tu m'aides aussi.
Je t'aiderai quand tu auras besoin d'aide.
Je t'aiderai si tu m'aides aussi.
Je t'aiderai parce que tu m'as aussi aidé.
Je t'aiderai à condition que tu m'aides aussi.
Je t'aiderai dès que tu auras besoin d'aide.
Je t'aiderai même si tu ne m'as pas aidé.
Je t'aiderai malgré que tu ne m'aies pas aidé.
Je t'aiderai pourvu que tu m'aides.
Je t'aiderai attendu que tu en as besoin.

ex., deux mots de même fonction: Paul et Pierre, automatiquement et immédiatement, jeune et beau, dormir et rêver

2. On distingue deux catégories de conjonctions: les

conjonctions de coordination et les conjonctions de subordination.

3. Les conjonctions de coordination servent à joindre, soit deux propositions de même nature, soit deux parties semblables d'une même proposition. Ces conjonctions peuvent donc unir des mots, des groupes de mots, ou des propositions.

4. Les principaux rapports indiqués par les conjonctions (et locutions conjonctives) de coordination sont:

a) union, liaison: et, comme, puis, ensuite, etc.

b) cause: car, en effet, etc.

c) conséquence: donc, par conséquent, par suite, etc.

d) transition: or, etc.

e) opposition, restriction: mais, au contraire, néanmoins, par contre, etc.,

f) alternative: ou, soit ... soit , etc.

g) explication: à savoir, c'est-à-dire, etc.

5. Les conjonctions de subordination ou subjonctions servent à relier une proposition subordonnée à la proposition dont elle dépend. Ces subjonctions ne peuvent donc unir que des propositions.

6. Les principaux rapports indiqués par les conjonctions (et locutions conjonctives) de subordination sont:

a) cause: comme, parce que, puisque, attendu que, etc.,

b) but: à fin que, pour que, etc.

c) conséquence: que, de sorte que, de façon que, si bien que, etc.,

d) concession, opposition: bien que, quoique, malgré que, au lieu que, etc.

e) temps: quand, lorsque, avant que, dès que, jusqu'à ce que, étc.

(Grevisse, 1975: 1070-72)

En général, les conjonctions se placent avant les mots, les groupes de mots, les propositions qu'elles relient à d'autres mots ou à d'autres propositions. La conjonction et la préposition indiquent l'une et l'autre les rapports établis entre les éléments qu'elles unissent, mais la préposition lie les mots, tandis que la conjonction unit surtout des propositions.

Adverbs, prepositions and conjunctions are invariable words. There are no strict lines of separation between them. For example, in the following sentences:

Il ne l'a pas revu depuis . (adv.) since
Il ne l'a pas revu depuis deux jours . (prep.) since
Il ne l'a pas revue depuis qu 'elle a déménagé en ville. (conjunction) since

"depuis" can serve as an adverb, preposition or conjunction.

Cognate Word-ending Regularities

16. French -ment = English -ly (adverbs)

1. certainement = d'une manière certaine

2. naturellement = conformément aux lois naturelles

3. rapidement = d'une manière rapide
4. complètement = d'une manière complète
5. automatiquement = d'une manière automatique
6. actuellement = dans les circonstances actuelles
7. extrêmement = d'une manière extrême
8. finalement = à la fin, pour finir
9. immédiatement = d'une manière immédiate
10. simplement = d'une manière simple, sans/complication

Most French adverbs are formed by adding "-ment" to the feminine form of the corresponding adjective. e.g., calme, calmement

Using Context Clues in Word Recognition

So far, you have become acquainted with the definition of cognates, including partial and deceptive cognates; ten example words for each of sixteen cognate word-ending regularities, some characteristics of French nouns, articles and pronouns, verbs and auxiliaries, adjectives, adverbs, prepositions and conjunctions; the suffixes of cognates which indicate parts of speech (like the noun suffixes "-isme, -cien," etc.) and some of the meanings of suffixes (like "-phone, -scope, -mètre", etc.). In order to practise and apply this knowledge, you have read different French excerpts.

The facilitation of French vocabulary acquisition by a knowledge of English-French cognates relates very closely to your vocabulary power in English. If you do not know the meaning of the French-English cognate in English, the word is of no help to you in understanding it in French.

One way of figuring out word meanings is the study and knowledge of suffixes, prefixes and root words. e.g., "tele" meaning far and "phone" meaning sound, thus "telephone" has the literal meaning of "far sound". But take care, most words have larger and more involved meanings than the sum of the parts would lead one to deduce.

Another strategy for figuring out meanings of unfamiliar words can be the use of context clues. Linguistic context can provide clues to the meanings of unfamiliar words in the following ways:

1. through definition, e.g., To give the submarine the continual attention it needs, the officers and crew are divided into watches . A watch is a four-hour period of duty.

2. example, e.g., The boys were lying still, heads down, inert , like dead men except for their loud and broken gasps for air.

3. modifiers, e.g., Simultaneously the feminist movement, seeking to achieve for women as much equality with men as possible , was quick to capitalize on the behaviorist theories.

4. restatement, e.g., hypothesis, a sort of guess ...

5. inference, which requires the reader to see relationships not explicitly stated. e.g., The practising physician as a rule is completely unskilled in dietetics . His preliminary training encompasses little or nothing concerning the details of food prescription.

The attentive reader will observe the close parallel between unskilled and preliminary training . From this parallel he will infer that the second sentence is probably a modified restatement of the first. He will then conclude that dietetics has something to do with "details of food prescription". While he has by no means a full definition of dietetics , he has enough meaning to allow him to proceed.

Effective reading is really a thinking process and the extent to which context reveals meaning varies with the experience of the reader, but the following limitations of using context clues in word recognition should be mentioned:

1. If you guess the meaning of a word from its context, it may not always be a correct guess.

2. The context reveals only one meaning of a new word, not all its possible meanings.

3. The growth of vocabulary by context is a slow, developing process.

You have been equipped to use word analysis and context clues to assist you in deciphering unfamiliar words. It is now up to you to make use of these aids to increase your English as well as French vocabularies.

L'Avenir de l'Amérique Centrale

L' Amérique Centrale n'a d'avenir que celui du Tiers monde. Même Costa Rica, véritable paradis au sein de cet isthme de misères, n'est pas capable d'un démarrage économique réel dans les conditions actuelles du marché international. Il faudrait que les nations développées révisent leur politique de prix et d'échange, qu'elles accordent des conditions plus favorables aux pays en voie de développement, qu'elles offrent des sommes plus avantageuses pour les produits de ces pays auxquels elles devraient vendre moins cher. Et n'allons pas croire que cet "il faudrait" correspond à un acte de charité, il équivaut bien au contraire à un acte de justice sociale, économique et humaine. Nous ne payons pas assez cher nos bananes et nous vendons trop cher nos tracteurs. Un travailleur agricole du Nicaragua doit travailler jusqu'à vingt fois plus longtemps qu'un travailleur canadien pour acheter le même produit ....

Quand l'admettrons-nous?

(Vidéo-Presse , Vol. III, Numéro 9, mai 1974, p. 41)

Questions

1) State the rule for the cognate word-ending in this lesson.

2) How many English-French cognates did you recognize? Please list them.

3) Did you guess the English equivalent for "isthme", "agricole", "échange" , "prix", "sommes", "admettrons" ?

4) What are the meanings of "vendre" and "travailler" in the excerpt?

5) Try to answer the following French questions on the content of the excerpt:

a) Que veut dire "l'avenir de l'Amérique Centrale" en anglais?

b) Quel est l'avenir de l'Amérique Centrale?

c) Pourquoi est-ce que l'Amérique Centrale est pauvre?

d) Comment les pays développés pourraient-ils aider les travailleurs du Nicaragua?

e) Est-ce que nous admettons que nous exploitons les nations en voie de développement?

f) Pour acheter le même produit qui doit travailler plus longtemps?

6) Identify the parts of speech for each of the following words: "faudrait, démarrage, centrale" and list the reasons for your choice.

7) Note how the conjunctions in the sentences indicate relationships. Translate the ten conjunctions from the

sentences "Je t'aiderai ...."

8) Give an example of a preposition and a conjunction from the excerpt in this lesson.

9) What is the difference between a preposition and a conjunction.

10) State the context clue which has been used in the following examples:

a) "dinosaure veut dire en grec, lézard terrible"

b) "Tous les 'humanistes', ces hommes à la culture universelle"

Lesson Seven

Syntax

The parts of speech you have studied (nouns, articles and pronouns, verbs and auxiliaries, adjectives, adverbs, prepositions and conjunctions) are the building blocks of sentences. A noun or pronoun may function as either the subject or the complement in a sentence. The noun complement may be used either as a direct object, an indirect object, a subjective complement (i.e. a complement which refers to the subject after a copular or linking verb), or as an object of a preposition in a prepositional phrase.

The verb is the essence of a sentence. It expresses either the action or being of the subject, the existence or state of the subject or the unity of the attribut with the subject. The general rule requires that the verb agrees with the subject.

Understanding words in isolation is not enough for comprehension of continuous written discourse. Word order also carries meaning. The pattern of sentences is determined by the number and arrangement of certain essential parts of speech.

Table of Types of Sentence Construction

The parts of the sentence

Sentence Construction	Subject	Verb	Complement
Statements			
	Marie	arrive. (verb)	
	Elle (pronoun)	caresse (verb)	son chat. (direct object)
	Nous	indiquons	la route à ce voyageur. (direct/indirect obj.)
	Il	est (copula)	gentil. (subjective complement)
	Pierre	devient (copula)	professeur. (subjective complement)
Questions			
1. raising of the voice	Tu	aimes	la musique?
2. inversion of subject and verb		Etes-vous	heureux?
3. question words	Lequel	voulez-vous?	
	Quand	pars-tu ?	
	Quand	est-ce que tu pars ?	
	Qui	est venu ?	
Commands		Asseyez-vous ! Asseyez-vous, s'il vous plaît ! Veuillez-vous vous asseoir !	
Exclamations			
	Que Lise	est	belle !
	Comme il	fait	beau !

There are four basic types of sentences: 1) statement, 2) question, 3) command, and 4) exclamation, and each of these has its characteristic construction.

Types of Sentences

The number of possible types of sentences is limited. It is much easier to see the sentence patterns clearly in your reading if you bracket off: a) all articles, b) all auxiliaries, c) all nouns used as modifiers, d) all adverbs, e) all prepositional phrases, and f) all adjectives except those used as subjective complements.

The following basic arrangements of parts of speech in a statement are:

Subject	Verb	Complement
Noun or pronoun	Verb	
Noun or pronoun	Verb	Noun
Noun or pronoun	Verb	Noun, Noun
Noun or pronoun	Linking Verb	Adjective
Noun or pronoun	Linking Verb	Noun

1. In all statements the verb is preceded by the subject.

2. The subject-verb construction is the smallest statement sentence. For example, "Je danse. La neige tombe."

3. The complement follows the verb.

4. With a linking verb (copula) the adjective or noun following the verb refers to the subject. This is known as a subjective complement. For example, "Ken est intelligent."

Another type of sentence construction is the interrogative sentence. The interrogative pronouns are:

Pour les personnes: Qui?
Pour les choses: Que?, Quoi?

Les Formes composées:

lequel?	laquelle?	lesquels?	lesquelles?
auquel?	à laquelle?	auxquels?	auxquelles?
duquel?	de laquelle?	desquels?	desquelles?

The interrogative adverbs are: quand? (when), où? (where), pourquoi? (why), and comment? (how).

Questions can be formed by

1. simply raising the intonation of a statement sentence,
2. inversion of the subject and the verb or auxiliary,
3. using interrogative pronouns and adverbs, or "est-ce que".

Any of the previously discussed statement sentences can be modified into a question by the above mentioned processes.

The command, also known as an imperative sentence, is characterized as follows:

1. The subject is omitted.
2. The verb is used at the imperative form. (e.g., the second person singular or plural "parle -- parlez" or the first person plural "parlons".
3. The imperative may be softened with "please", or a polite paraphrase. Most people do not like to be ordered to do something. They prefer to be asked nicely.

Exclamations form a sentence pattern distinct from statements, questions or commands. Grevisse notes:

> Il y a, en effet, un rapport étroit entre l'expression grammaticale de la proposition et l'expressivité (tension émotionnelle quelconque). Plus on fait diminuer l'expressivité plus la structure de la proposition tend vers la parfaite régularité selon les lois de l'analyse. Plus on fait croître l'expressivité, plus l'expression grammaticale se libère de la régularité: à la limite, cette expression grammaticale se réduit à la simple interjection. (Grevisse, 1975 : 136 - 137)

The exclamatory sentence pattern has the following characteristics:

1. Exclamations often start with "que" (what), "comme" (how) or sometimes "pourquoi" (why) as the initial word. e.g., "Que la vie est belle !"

2. An exclamation is terminated with an exclamation mark.

A simple sentence consists of a finite verb (a verb in a specific person and tense) and a subject (except for the imperative sentence construction when the subject is omitted). Any of the simple sentence constructions previously discussed may be connected by a coordinating conjunction, or placed side by side separated by a comma or semi-colon to form a compound sentence. If sentences are connected by a subordinate conjunction the result is a complex sentence.

Questions

1) How many sentences types are there? Name them please.

2) Where do you usually find the subject in relation to the verb in a statement?

3) In what order and where do you place the direct and indirect object? Hint, look at the table.

4) Why is the command not used in the past tense?

5) With what part of speech does the verb agree in a sentence?

6a) Which parts of speech are variable words?

b) Name the invariable parts of speech.

7) What is the characteristic of a command?

8) How can you identify a question in written material?

9) What is the difference between a compound and a complex sentence?

10a) List an exclamatory sentence from the excerpt "Les Dinosaures".

b) How did you decide that the sentence was exclamatory?

11a) List a command from the excerpt "La Pollution".

b) What are the characteristics of a command?

12a) From the same excerpt, "La Pollution", give an example of a question with subject-verb inversion.

b) From the excerpt "L'Avenir de l'Amérique Centrale" cite an example of a question with an interrogative adverb at the beginning of the sentence.

13a) Find a subject-verb statement from the excerpt "La Renaissance italienne".

b) In the excerpt "L'Empire Inca" examine the first sentence and write down the subject - verb - direct object.

14) You may have become tired of and bored with reading the prepared excerpts in this cognate unit. Now it is your turn

to prepare a French excerpt. You may follow the format of the excerpts presented in the previous lessons. Select an excerpt from any French reading material of interest to you, and about the same length as the excerpts you have read here. Check for cognates and formulate questions and an answer key. Then pick a grammar point of particular difficulty for you, explain it with the aid of a grammar or textbook. Verify the comprehension of this point of grammar with questions and relate it to your excerpt. Should you have a better idea for the lesson format, try it. After having exchanged your lesson with your fellow students, hand it in to your instructor.

Appendix A

ANSWER KEY

Answers to questions in lesson one

2) Linguistic interference is defined as the use of elements of one language while speaking or writing the other.

Phonetics refers to the sound system acceptable to a given linguistic community. phone = sound or tone.

Morphology is the study of forms. Greek "morpho" means form. Morphology is defined as that branch of linguistic study which deals with the history and functions of inflections and derivational forms.

Context is defined as the part or parts of a discourse preceding or following a "text" or passage or a word, or so intimately associated with it as to throw light upon its meaning.

Cognition is defined as any mental operation by which we become aware of objects, of thought or perception.

Lexicon refers to words; dictionary.

Semantics refers to the branch of the study of language concerned with meanings.

Syntax is that branch of linguistics which deals with sentence construction; the grammatical arrangement of words.

3) Cognates are words which have the same or similar spellings and meanings in two or more languages. Partial cognates are words whose meanings overlap in some senses but not in others. Deceptive cognates are words which have the same or similar spellings but different meanings in two or more languages.

Answers to questions in lesson two

1) a) The French "-té" word-ending corresponds to the English "-ty" word-ending.

b) The French "-ie" word-ending corresponds to the English "-y" ending.

c) The French "-nce" word-ending corresponds to the English "-nce" or "-ncy" ending.

d) The French "-iste" word-ending corresponds to the English "-ist" ending.

2) The "-té" cognate word-ending applies to 542 English-French cognates.

3) "-iste" has the meaning of a person who does something. The gender is determined by the sex of the person in question.

4) For example, if you eliminate the noun suffix "-té" from "beauté" you have the adjective "beau". Suffixes which determine the part of speech of words do not necessarily affect the essential meaning of the word. e.g., "rapide" is an adjective, "rapidité" a noun, and "rapidement" an

adverb. Thus, from knowledge of the primary word you could understand derived words.

5) The cognates for the excerpt "La Renaissance italienne" are: Renaissance, italienne, riche, Médicis, Florence, Italie, protectrice, sculpteurs, désireux, harmonie, magnificence, art, gréco-romain, cité, splendeur, monuments, Venise, Rome, humanistes, culture, universelle, botanique, zoologie, anatomie, géologie, astrologie, navigation, étude, textes, anciens, sources, inspiration, période.

6) Counting only those English-French cognates with identical spelling, one letter difference in the spelling, or any of the cognate word-ending regularities, there are 33.

7) famille = family, règne = rules or reigns (verb), ville = town, peintres = painters, palais = palace, rivalise = (to) rival, fêtes = celebrations, festivities.

8a) XVe siècle, 8b) la riche famille des Médicis, 8c) Ce sont des hommes de culture universelle. 8d) Florence, 8e) dans les textes anciens, 8f) riche,

9) a) "protectrice" refers to a person, it is a noun, b) the "-trice" is the feminine noun ending of "protecteur", c) "protectrice" is preceded by the definite feminine article "la", d) you can form the plural by adding an "s" "la protectrice - les protectrices"

10) articles and/or adjectives

11) You generally form the plural of French nouns in a

similar manner as in English, you add an "s".

Answers to questions in lesson three

1) a) The French "-eur" word-ending corresponds to the English "-or" or "-er" word-ending.

b) The French "-isme" word-ending corresponds to the English "-ism" ending.

c) The French "-cien" word-ending corresponds to the English "-cian" ending.

d) The French "-re" word-ending corresponds to the English "-er" ending.

2) It indicates "belief in, doctrine or practice, profession, a system, theory".

3) The "-eur" ending can be a noun or adjective ending. When the "-eur" ending is used as an adjective the word is not necessarily a cognate.

4) "one who" or in French "celui qui"

5) -isme = 302 English-French cognates
-ie = 533 English-French cognates
-re = 339 English-French cognates

6) The cognates for the excerpt "La Pollution" are: air, pollue, responsable, pollution, certainement, automobile, efforts, éliminer, ennemi, recours, requièrent, véhicule, effet , carbone, gouvernement, oblige, installer, systèmes, anti-pollution, informe, influence, dollars, diminuer, sévère, possible, indifférent, campagne, utilisation.

7) les fabricants = manufacturers, le coût = cost, expense, la bicyclette = bicycle.

8) rester = stay, remain; milliers = thousands

9a) l'automobile, 9b) On installe des systèmes anti-pollution sur tous les nouveaux véhicules. 9c) de la bicyclette, 9d) oui, 9e) le Gouvernement, 9f) les usines.

10) a) "véhicules" refers to a thing, it is a noun, b) preceded by an adjective "nouveaux", c) plural ending "-s"

11) a) "ennemi" names a person, it is a noun, b) preceded by "cet", which is a demonstrative adjective.

12) The personal pronoun replaces a noun. The pronoun agrees in gender and number with the noun it replaces.

13) The French article ("le" or "la") indicates whether the noun is masculine or feminine.

14) The indefinite article does not determine or specify the object named.

15) The English definite article is "the" and the English indefinite article is "a" or "an".

Answers to questions in lesson four

1) a) The French "-er" word-ending corresponds to the dropping in English of the "-er" or just the "r" cognate word-ending.

b) The French "-ier" word-ending corresponds to the English "-y" ending.

2) The "-cien" ending can be an adjective or noun ending,

e.g., ancien, musicien.

3) "-ion" = 1,176; "-nce" = 274; "-iste" = 259; "-eur" = 160; "-cien" = 10

4) There are 30 English-French cognates.

The cognates for the excerpt "L'Empire Inca" are: origine, humble, indienne, installée, océan, Pacifique, conquête, territoires, complètement, intégrait, société, communications, commerciales, rapidement, possible, accélérer, usage, concédé, diverses, classes, sociales, succession, royale, Incas, automatiquement, monarques, européens, empereur, statut, descendant.

5) peuplade = tribe; bords = borders; établi = established; échanges = exchanges; espèces = species; époque = epoch

6) propre = own

7) Did you recognize "corps" as meaning "group" ? (Think of airforce corps, or drum and bugle corps). In this excerpt "corps" does not mean "dead body" (corpse).

8a) sur les bords de l'océan Pacifique, 8b) Les vaincus étaient intégrés dans la société des Incas. 8c) à diverses classes sociales, 8d) pour accélérer toutes espèces d'échanges, 8e) tous les fils de l'empereur, 8f) En Europe le fils aîné régnait, mais pas nécessairement chez les Incas.

9) a) verbs are words that imply an action or a situation, b) "intégrait" expresses an action, it is a verb, c) -"ait" shows that the verb is in the imperfect tense, third person singular, d) the verb is preceded by a direct object "les"

10) A simple tense is one without any use of auxiliaries. There are seven simple tenses and seven compound tenses.

11a) "avait" is an auxiliary, b) "avait" appears next to the verb "entrepris", and c) "avoir" is frequently used as an auxiliary.

Answers to questions in lesson five

1a) The French "-ique" word-ending corresponds to the English "-ic" ending.

b) The French "-if" word-ending corresponds to the English "-ive" ending.

c) The French "-eux, euse" word-ending corresponds to the English "-ous" word-ending.

d) The French "-tiel, elle" word-ending corresponds to the English "-tial" ending.

e) The French "-é" word-ending corresponds to the English "-ed" ending.

2) -phone = qui parle, qui est enregistré; -phile = qui aime; -logie = science; -mètre = qui mesure

3) -é = 104 English-French cognates; -eux = 161 English-French cognates; -tiel = 16 English-French cognates

4) préférentiel = adj., préférence = noun; courageux = adj., courage = noun; certainement = adv., certain = adj.

5) There are 25 English-French cognates.

The cognates for the excerpt "Les Dinosaures" are: lézards, terribles, Canada, passé, peuplé, immense, territoire, classe, émergées, population, Canadiens, Québec, Montréal, dinosaure, étrange, animal, millions, planète, diverses, Alberta, variété, spécimens, période, supérieur, différentes.

6) fait = fact; découverts = uncovered, discovered; nombre = number, nombreuse = numerous, rassurez = (to) reassure, autoroute = highway, grec = Greek, peuplé = peopled, populated; espèces = species

7) partie = part not party; anciens = former not ancient; chances = luck not opportunity

8a) jeune, 8b) en Alberta, 8c) Je m'enfuirais à toutes jambes. 8d) lézard terrible, 8e) plus de 65 espèces différentes, 8f) les dinosaures.

9) a) adjectives describe nouns, peuplé is an adjective. The French adjective "-é" corresponds to the English "-ed" ending. The adjective agrees in number and gender with the noun it modifies, in this example "pays". Descriptive adjectives follow the noun e.g., "pays jeune et peuplé".

9) b) Verbs are words that imply an action or a situation, "passe" is a verb. The verb shows a change in tense by a change in sound and spelling, in this example it is the present indicative tense and the third person singular. The verb "passe" is preceded by a noun (subject).

9) c) A noun names a person, place or thing, territoire is a noun, "territoire" is preceded by an adjective "immense". The French "-oire" noun ending corresponds to the English "-ory" ending. "Territoire" would form the plural with an

"s".

9) d) adjectives modify nouns, émergées is an adjective, it agrees in number and gender with the noun it modifies "terres émergées", "émergées" follows the noun "terres" it modifies, the French adjective "-é" corresponds to the English "-ed" ending.

10) The French adjective agrees in number and gender with the noun it modifies.

11) The plural of the French adjective is generally formed by adding an "s" to the singular, e.g., vert - verts, verte - vertes.

12) Adjectives, with a few exceptions, can change their form to show comparison or to indicate the superlative. In addition, adjectives are words that will fill the blank in the test sentence : The (any suitable noun) is/are very --.

Answers to questions in lesson six

1) The French "-ment" word-ending corresponds to the English "-ly" ending.

2) There are 34 English-French cognates. The cognates for the excerpt "L'Avenir de l'Amérique Centrale" are: Amérique, centrale, Costa Rica, véritable, paradis, misères, capable, économique, réel, conditions, actuelles, international, nations, développées, revisent, politique, accordent, favorables, développement, offrent, avantageuses, produits, correspond, acte, charité,

contraire, justice, sociale, humaine, payons , bananes, tracteurs, Nicaragua, canadien .

3) isthme = isthmus; agricole (adj.) = agricultural; échange = exchange; prix = price; sommes = sums; admettrons = (we will) admit

4) vendre = to sell not to vend; travailler = to work not to travail

5a) The future of Central America, 5b) la pauvreté, 5c) Les nations en train de se développer et les nations développées paient le même prix pour les produits. 5d) en payant plus cher nos bananes et en vendons moins cher nos tracteurs, 5e) non, pas encore d'après cet extrait, 5f) le travailleur agricole du Nicaragua.

6a) a verb expresses an action or a state of being, faudrait = verb, "faudrait" is the present conditional, third person singular, "faudrait" is preceded by a pronoun "il"

6b) a noun names a person, place or thing, démarrage = noun, it is preceded by an indefinite article "un", the plural could be formed by adding an "s"

6c) an adjective describes a noun, centrale = adjective, "centrale" agrees in number and gender with the noun it modifies, in this example "Amérique", the descriptive adjective follows the noun.

7) puisque = since ; quand = when ; si = if ; parce que = because ; à condition que = on condition that ; dès que = as soon as ; même si = even if ; malgré que = even though,

in spite of ; pourvu que = provided that ; attendu que = seeing that

8) "pour", "jusqu'à", etc. are prepositions; "et" is a conjunction

9) A preposition attaches or links a noun or pronoun used as a modifier to some other word in the sentence. Coordinate conjunctions join words, groups of words, or sentences that are grammatically equal.

10a) definition; 10b) restatement

Answers to questions in lesson seven

1) There are four types of sentences: statement, question, command, exclamation.

2) The subject precedes the verb.

3) The order is verb - direct object - indirect object. In general, pronouns exhibit differences regarding order when compared with nouns. For example, "Je vois l'homme". but "je le vois", that is, the pronoun object precedes, whereas the noun object follows the verb.

4) You cannot command something to be done in a time already past.

5) The general rule is that the verb agrees in number with the subject of the sentence.

6a) the article, adjective, noun, pronoun, and verb (also the participles)

b) the conjunctions, prepositions, adverbs

7) the subject is omitted.

8) Questions are signalled in the following way: a) inversion of the subject and the verb or auxiliary, b) the interrogative pronouns or adverbs signal a question when they appear at the beginning of a sentence, c) the use of "est-ce que". The question mark is written at the end of each interrogative sentence.

9) In a compound sentence two independent sentences are joined by a coordinate conjunction. In a complex sentence an independent and a dependent sentence are joined by a subordinate conjunction.

10a) "Mais rassurez-vous: il y a bien peu de chances de croiser, sur l'autoroute Québec-Montréal en 1972, ... un dinosaure!"

b) The exclamation mark is an indicator since in written material there is no intonation of a speaker.

11a) "Informe-toi auprès de plusieurs garagistes pour savoir si les dispositifs anti-pollution ont une influence ...."

b) 1. no subject, 2. the verb "informe" is used in the imperative form.

12a) "Et toi, que feras-tu?"

b) "Quand l'admettons-nous?"

13a) la (riche) famille (des Médicis) règne ...
(subject) (verb)

b) (une humble) peuplade avait entrepris la conquête ...
(subject) (verb) (direct object)

14) Please hand in your excerpt.

Appendix B

The Conjugation of the Verb

Indicative of the "-er" Verbs

PRESENT	IMPERFECT	SIMPLE PAST	FUTURE
parle	parlais	parlai	parlerai
parles	parlais	parlas	parleras
parle	parlait	parla	parlera
parlons	parlions	parlâmes	parlerons
parlez	parliez	parlâtes	parlerez
parlent	parlaient	parlèrent	parleront

COMPOUND PAST	PLUPERFECT	PAST ANTERIOR	FUTURE PERFECT
ai parlé	avais parlé	eus parlé	aurai parlé
as parlé	avais parlé	eus parlé	auras parlé
a parlé	avait parlé	eut parlé	aura parlé
avons parlé	avions parlé	eûmes parlé	aurons parlé
avez parlé	aviez parlé	eûtes parlé	aurez parlé
ont parlé	avaient parlé	eurent parlé	auront parlé

CONDITIONAL	IMPERATIVE	SUBJUNCTIVE	
Pres Conditional		Present	Imperfect
parlerais		parle	parlasse
parlerais	parle	parles	parlasses
parlerait		parle	parlât
parlerions	parlons	parlions	parlassions
parleriez	parlez	parliez	parlassiez
parleraient		parlent	parlassent
Past Conditional		Past	Pluperfect
aurais parlé		aie parlé	eusse parlé
aurais parlé		aies parlé	eusses parlé
aurait parlé		ait parlé	eût parlé
aurions parlé		ayons parlé	eussions parlé
auriez parlé		ayez parlé	eussiez parlé
auraient parlé		aient parlé	eussent parlé

Indicative of the "-ir" Verbs

PRESENT	IMPERFECT	SIMPLE PAST	FUTURE
finis	finissais	finis	finirai
finis	finissais	finis	finiras
finit	finissait	finit	finira
finissons	finissions	finîmes	finirons
finissez	finissiez	finîtes	finirez
finissent	finissaient	finirent	finiront

COMPOUND PAST	PLUPERFECT	PAST ANTERIOR	FUTURE PERFECT
ai fini	avais fini	eus fini	aurai fini
as fini	avais fini	eus fini	auras fini
a fini	avait fini	eut fini	aura fini
avons fini	avions fini	eûmes fini	aurons fini
avez fini	aviez fini	eûtes fini	aurez fini
ont fini	avaient fini	eurent fini	auront fini

CONDITIONAL	IMPERATIVE	SUBJUNCTIVE	
Pres Conditional		Present	Imperfect
finirais		finisse	finisse
finirais	finis	finisses	finisses
finirait		finisse	finît
finirions	finissons	finissions	finissions
finiriez	finissez	finissiez	finissiez
finiraient		finissent	finissent

Past Conditional	Past	Pluperfect
aurais fini	aie fini	eusse fini
aurais fini	aies fini	eusses fini
aurait fini	ait fini	eût fini
aurions fini	ayons fini	eussions fini
auriez fini	ayez fini	eussiez fini
auraient fini	aient fini	eussent fini

Indicative of the "-re" Verbs

PRESENT	IMPERFECT	SIMPLE PAST	FUTURE
perds	perdais	perdis	perdrai
perds	perdais	perdis	perdras
perd	perdait	perdit	perdra
perdons	perdions	perdîmes	perdrons
perdez	perdiez	perdîtes	perdrez
perdent	perdaient	perdirent	perdront

COMPOUND PAST	PLUPERFECT	PAST ANTERIOR	FUTURE PERFECT
ai perdu	avais perdu	eus perdu	aurai perdu
as perdu	avais perdu	eus perdu	auras perdu
a perdu	avait perdu	eut perdu	aura perdu
avons perdu	avions perdu	eûmes perdu	aurons perdu
avez perdu	aviez perdu	eûtes perdu	aurez perdu
ont perdu	avaient perdu	eurent perdu	auront perdu

CONDITIONAL	IMPERATIVE	SUBJUNCTIVE	
Pres Conditional		Present	Imperfect
perdrais		perde	perdisse
perdrais	perds	perdes	perdisses
perdrait		perde	perdît
perdrions	perdons	perdions	perdissions
perdriez	perdez	perdiez	perdissiez
perdraient		perdent	perdissent

Past Conditional	Past	Pluperfect
aurais perdu	aie perdu	eusse perdu
aurais perdu	aies perdu	eusses perdu
aurait perdu	ait perdu	eût perdu
aurions perdu	ayons perdu	eussions perdu
auriez perdu	ayez perdu	eussiez perdu
auraient perdu	aient perdu	eussent perdu

Indicative of the "-oir" Verbs

PRESENT	IMPERFECT	SIMPLE PAST	FUTURE
reçois	recevais	reçus	recevrai
reçois	recevais	reçus	recevras
reçoit	recevait	reçut	recevra
recevons	recevions	reçûmes	recevrons
recevez	receviez	reçûtes	recevrez
reçoivent	recevaient	reçurent	recevront

COMPOUND PAST	PLUPERFECT	PAST ANTERIOR	FUTURE PERFECT
ai reçu	avais reçu	eus reçu	aurai reçu
as reçu	avais reçu	eus reçu	auras reçu
a reçu	avait reçu	eut reçu	aura reçu
avons reçu	avions reçu	eûmes reçu	aurons reçu
avez reçu	aviez reçu	eûtes reçu	aurez reçu
ont reçu	avaient reçu	eurent reçu	auront reçu

CONDITIONAL	IMPERATIVE	SUBJUNCTIVE	
Pres Conditional		Present	Imperfect
recevrais		reçoive	reçusse
recevrais	reçois	reçoives	reçusses
recevrait		reçoive	reçût
recevrions	recevons	recevions	reçussions
recevriez	recevez	receviez	reçussiez
recevraient		reçoivent	reçussent

Past Conditional		Past	Pluperfect
aurais reçu		aie reçu	eusse reçu
aurais reçu		aies reçu	eusses reçu
aurait reçu		ait reçu	eût reçu
aurions reçu		ayons reçu	eussions reçu
auriez reçu		ayez reçu	eussiez reçu
auraient reçu		aient reçu	eussent reçu

Indicative of the Verb "avoir"

PRESENT	IMPERFECT	SIMPLE PAST	FUTURE
ai	avais	eus	aurai
as	avais	eus	auras
a	avait	eut	aura
avons	avions	eûmes	aurons
avez	aviez	eûtes	aurez
ont	avaient	eurent	auront

COMPOUND PAST	PLUPEFFECT	PAST ANTERIOR	FUTURE PERFECT
ai eu	avais eu	eus eu	aurai eu
as eu	avais eu	eus eu	auras eu
a eu	avait eu	eut eu	aura eu
avons eu	avions eu	eûmes eu	aurons eu
avez eu	aviez eu	eûtes eu	aurez eu
ont eu	avaient eu	eurent eu	auront eu

CONDITIONAL	IMPERATIVE	SUBJUNCTIVE	
Pres Conditional		Present	Imperfect
aurais		aie	eusse
aurais	aie	aies	eusses
aurait		ait	eût
aurions	ayons	ayons	eussions
auriez	ayez	ayez	eussiez
auraient		aient	eussent
Past Conditional		Past	Pluperfect
aurais eu		aie eu	eusse eu
aurais eu		aies eu	eusses eu
aurait eu		ait eu	eût eu
aurions eu		ayons eu	eussions eu
auriez eu		ayez eu	eussiez eu
auraient eu		aient eu	eussent eu

Indicative of the Verb "être"

PRESENT	IMPERFECT	SIMPLE PAST	FUTURE
suis	étais	fus	serai
es	étais	fus	seras
est	était	fut	sera
sommes	étions	fûmes	serons
êtes	êtiez	fûtes	serez
sont	étaient	furent	seront

COMPOUND PAST	PLUPERFECT	PAST ANTERIOR	FUTURE PERFECT
ai été	avais été	eus été	aurai été
as été	avais été	eus été	auras été
a été	avait été	eut été	aura été
avons été	avions été	eûmes été	aurons été
avez été	aviez été	eûtes été	aurez été
ont été	avaient été	eurent été	auront été

CONDITIONAL	IMPERATIVE	SUBJUNCTIVE	
Pres Conditional		Present	Imperfect
serais		sois	fusse
serais	sois	sois	fusses
serait		soit	fût
serions	soyons	soyons	fussions
seriez	soyez	soyez	fussiez
seraient		soient	fussent
Past Conditional		Past	Pluperfect
aurais été		aie été	eusse été
aurais été		aies été	eusses été
aurait été		ait été	eût été
aurions été		ayons été	eussions été
auriez été		ayez été	eussiez été
auraient été		aient été	eussent été

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